

Stadium/Arena Feasibility Study

Summary Report

IBI Group

Group Eight Engineering Ltd.

Hanscomb Roy Associates

Economic Research Associates

September 1980



CITY OF HAMILTON

STADIUM/ARENA FEASIBILITY STUDY

SUMMARY REPORT

IBI GROUP
in association with Group Eight Engineering Ltd. Hanscomb Roy Associates Economic Research Associates

September 1980



Group

156 Front Street West 6th Floor Toronto, Canada M5J 2L6 (416) 596-1930

September 10, 1980

Mr. J.R. Jones Secretary, Board of Control City Hall Hamilton, Ontario

Dear Mr. Jones:

Stadium/Arena Feasibility Study

In accordance with the terms of reference for this study and our proposal dated June 17, 1980, we are pleased to submit our final report. This report presents our findings in terms of public opinion, market estimates, site comparisons, design concepts, financial/operations analyses, economic and other impacts, and related issues. In accordance with the terms of reference, Phase 1 of the study focussed on an initial assessment of markets, sites, facilities and financial considerations, as well as a public opinion poll, to draw interim conclusions regarding the desirability and feasibility of new stadium/arena facilities for Hamilton. Following review of our interim conclusions at the end of July, the Steering Committee decided that we should proceed with Phase 2, comprising more detailed assessment of markets, sites, design concepts, financial/operations requirements, economic and other impacts and final conclusions and recommendations.

Reflecting this structure, two volumes of detailed appendices accompany this report: the Phase 1 Appendices describing work carried out in July and the Phase 2 Appendices describing the more detailed work leading to this final report. Overall results of the study are summarized in the Summary Report.

In particular, our conclusions and recommendations are summarized in Section 7 of the Summary Report. We find that the public surveys, market analysis, site comparison, design concepts and financial/operations/economic analyses support the desirability and feasibility of a new arena/trade centre and a new or improved stadium provided suitable financing can be arranged. If funding can be arranged, a new stadium, located on the mountain south-east of Limeridge Road and Upper Wentworth Street, would be preferable, but an expanded/refurbished Ivor Wynne Stadium would also be suitable. Such a new or improved stadium with at least 40,000 seats, is essential to the continued viability of a CFL football team in Hamilton and to the obtaining of an NHL team without a territorial payment to the Toronto Maple Leafs. At least 50% Federal/Provincial funding seems likely for a combined arena/trade centre facility and similar financial support may be forthcoming for a new or improved stadium. The preferred site for the arena/trade centre is on the east side of Bay Street North between King Street West and Merrick Street, adjacent to Jackson Square and operated jointly with the existing Convention

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Centre. An NHL team is central to the financial feasibility of the new arena/trade centre and there seems to be a reasonable prospect that private interests would purchase an existing NHL team for Hamilton if a suitable facility were available. If 50% senior government funding is obtained, the remaining municipal share would cost the average municipal tax payer in Hamilton approximately \$1.00 - \$1.75 per month in additional taxes.

Substantial economic benefits, in terms of more jobs and increased income to residents, businesses and the City of Hamilton through tax revenues, would flow from the new facilities. Social benefits would also result including improved availability of facilities for amateur sports and community events, as well as the availability of sporting/recreational/trade show events within Hamilton. We believe that considerable civic pride and momentum would be generated by these developments.

Should the City of Hamilton decide to proceed with the stadium and arena/ trade centre, negotiations should be pressed regarding senior government funding and the obtaining of an NHL team for Hamilton. Depending on the results and timing of such negotiations, more detailed planning and design of the facilities could proceed, such that the new facilities could be in operation by the summer/fall of 1984 or an expanded/refurbished Ivor Wynne Stadium by the summer of 1983.

The purpose of this report is to provide information on the desirability, feasibility, nature/location, and financial/economic operational attributes of major arena/stadium facilities for the City of Hamilton. We trust that the report fulfills these purposes and will assist the City in these important decisions.

We acknowledge with thanks the close co-operation received from the Steering Committee, City and Regional officials, promotors and facility operators who provided information, and members of the public who responded to the public surveys. The findings and recommendations of the study have drawn upon this assistance but are the responsibility of the consultant team.

We appreciate this opportunity to assist the City of Hamilton, and look forward to discussing the report and its implications with the Committee and Council in the near future.

Yours very truly,

IBI GROUP

Neal A. Irwin Managing Director the art to politicast felometh on at least to many them become

STADIUM/ARENA FEASIBILITY STUDY

SUMMARY REPORT

TABLE OF CONTENTS

	MILESTER A PRINCIPLE OF A PRINCIPLE	PAGE
1.	INTRODUCTION	1
2.	MARKET ESTIMATES	4
3.	SITE COMPARISONS	14
4.	DESIGN CONCEPTS	22
5.	FINANCIAL/OPERATIONS ANALYSES	31
6.	ECONOMIC AND OTHER IMPACTS	42
7.	CONCLUSIONS AND RECOMMENDATIONS	57

LIST OF EXHIBITS

PAGE

1. 2. 3.	STUDY STRUCTURE ARENA/TRADE CENTRE MARKET ESTIMATES ANALYSIS OF POTENTIAL EVENTS IN THE PROPOSED	opposite	
4. 5. 6. 7.	HAMILTON ARENA ARENA/TRADE CENTRE BEST ESTIMATE POTENTIAL SITES SITE ASSESSMENT & ACCESSIBILITY ANALYSIS PREFERRED SITES FOR ARENA/TRADE CENTRE	opposite overleaf opposite overleaf	p.10 p.14 p.14
8. 9. 10. 11.	COMPARABLE STADIUM/ARENA FACILITIES SITE 6 ARENA STREET LEVEL SITE 6 ARENA SECTIONS SITE 2 STADIUM IVOR WYNNE STADIUM	opposite opposite overleaf opposite	p.22 p.23 p.23 p.25
13.	ARENA/TRADE CENTRE OPERATING PROFIT/LOSS SUMMARY OF ARENA/TRADE AND CONVENTION CENTRE JOINT OPERATION	opposite opposite	p.33
15. 16. 17. 18.	EXPANDED IVOR WYNNE OPERATING PROFIT/LOSS STADIUM OPERATING PROFIT/LOSS COST IMPLICATIONS (\$ Millions Current) FEDERAL CONTRIBUTION FOR CAPITAL CONSTRUCTION	opposite opposite overleaf opposite	p.35 p.35
19.	OF SPORT FACILITIES SUMMARY OF TOTAL ECONOMIC IMPACT (DIRECT, INDIRECT AND INDUCED EFFECTS) GENERATED BY CONSTRUCTION AND OTHER STADIUM AND ARENA/TRADE CENTRE	opposite	
20.	RELATED EXPENDITURES PUBLIC ATTITUDES - SUMMARY	opposite opposite	
21.	STUDY FINDINGS	opposite	p.57



STADIUM/ARENA FEASIBILITY STUDY SUMMARY REPORT

1. INTRODUCTION

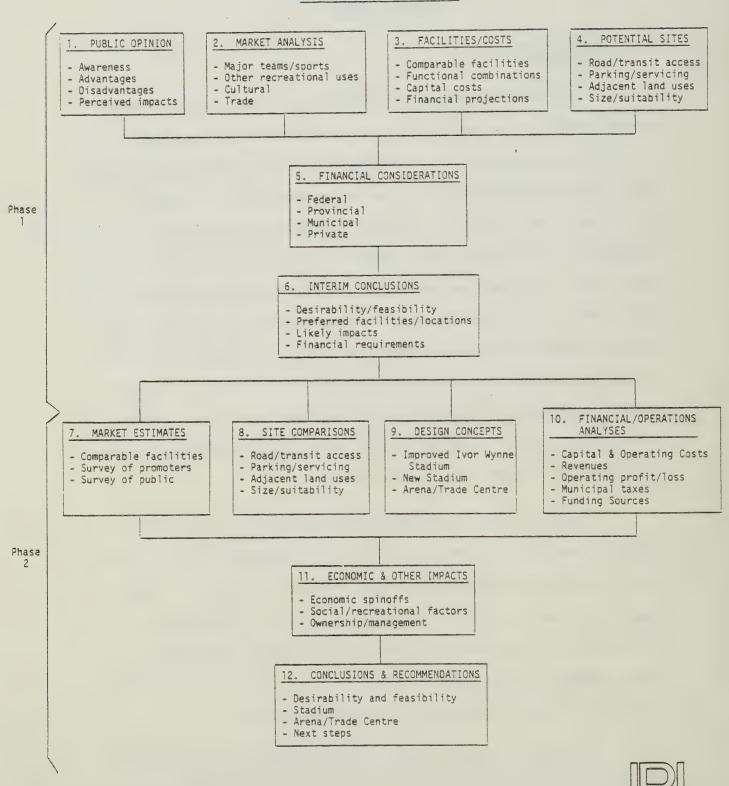
The Hamilton Area, with a population of approximately one-half million people, is currently served in terms of major recreational/cultural/trade facilities by the Ivor Wynne Stadium (34,000 seats) located about two miles east of the City Centre, the Hamilton Place Theatre (1,700 seats) and an adjacent convention centre (35,000 gross sq. ft.) in Jackson Square at the City Centre, and a number of smaller stadia and arenas serving local areas. In comparison with other Canadian metropolitan areas of similar size, there is a noticeable lack of major arena and trade centre/convention facilities capable of accommodating major sporting, trade and exhibition events. Additionally, the Ivor Wynne Stadium is deficient, in terms of size and seat location, relative to the requirements of major professional outdoor sporting events and the size/nature of stadia supported by cities of similar size elsewhere in Canada and the U.S.

There has been continuing demand by members of the Hamilton business community, citizens and local interest groups for a new stadium/ arena facility or facilities, to meet the perceived needs of an urban area of over one-half million people and a surrounding region almost half as big again. At the same time, there has been continuing concern by various members of the community regarding the cost and financial impacts, particularly on municipal taxes, of such an undertaking.

The current study was commissioned to address the desirability and viability of a stadium/arena from the "public interest" perspective and

STADIUM/ARENA FEASIBILITY STUDY

EXHIBIT 1: STUDY STRUCTURE



examine its feasibility. Phase I of the study focussed on market demand, site assessment, comparable facilities and their costs, public opinion, and potential funding sources. The findings of this phase were presented in an interim report at the end of July, 1980, as a basis for decisions regarding:

- whether or not to proceed with further study in Phase 2;
- if the study were to proceed, the type(s) of facility and the preferred location(s) to be included in the more detailed Phase 2 assessment.

The interim study findings were discussed with the Stadium/Arena Committee on July 31 and it was decided that further, more detailed study of specific facilities and locations was warranted, based upon the levels of feasibility and desirability revealed by the Phase 1 work.

The feasibility considerations which were addressed in Phase 1 are summarized in Exhibit 1, opposite, which also summarizes the more detailed work carried out in Phase 2. Briefly, Phase 1 provided an assessment of public opinion and initial analysis of markets, alternative facilities and their costs, potential sites, and financial considerations. The feasibility and desirability of a new arena and a new or improved stadium were assessed based on these considerations, and the most promising locations and types of facilities were identified for further study.

Based on these findings, the Phase 2 study focused on an arena/
trade centre on three alternative downtown sites; expansion/improvement of
the Ivor Wynne Stadium; and a new stadium on three alternative suburban
sites. More detailed market estimates were carried out, including a survey



of the public to determine existing and probable future usage levels of such facilities. Design concepts were developed for each of the two new and one expanded facility and detailed site comparisions were carried out in terms of road and transit access, parking, servicing, size and suitability of the site, and impact on adjacent land uses. Detailed financial and operational analyses were carried out, including estimates of capital and operating costs, projections of costs, revenues and operating profits/losses, impact on municipal taxes under various funding assumptions and an assessment of probable funding sources. The economic and other impacts of such new and/or improved facilities were assessed, including impact on jobs, income in the community, benefits to service industries and impacts on amateur sports/ recreational opportunities. The most appropriate ownership and management arrangements for the facilities were also addressed. Based on these findings, conclusions were drawn regarding the need for and feasibility of new arena/stadium facilities and recommendations made regarding each facility.

The findings and recommendations of the study are summarized in this Summary Report. Two volumes of appendices provide substantial additional information: the Phase I appendices present findings from the initial phase and the Phase 2 appendices present the more detailed studies of Phase 2. In the following sections of this Summary Report we differentiate, where appropriate, between the interim findings and the more detailed work of Phase 2, following the general logic of Exhibit 1.



2. MARKET ESTIMATES

Three approaches have been taken to the assessment of demand for stadium, arena, and trade/exhibition centre facilities in Hamilton. These are:

- 1. An analysis of the use of comparable facilities in several cities across Canada and the U.S.A.
- 2. A survey of operators/promotors of events in the Hamilton region, to ascertain their estimates of future demand.
- 3. A survey of the public to determine existing levels of attendance at sporting and other events in Hamilton and neighbouring cities; together with an assessment of potential levels of attendance should new opportunities become available in the City of Hamilton.

The three approaches used are listed in declining order of reliability, with the use of comparable facilities providing the most dependable source of information. Separate analyses have been conducted for the stadium and arena/trade centre. These are summarized in the ensuing sections with further details provided in Appendices 2A, 2B and 2C.

Stadium Facility

Analysis of Comparables

Contact was made with operators of stadium facilities in Shaffer Stadium (Boston), Lawnsdowne Stadium (Ottawa), Exhibition Stadium (Toronto), Commonwealth Stadium (Edmonton) and Rich Stadium (Buffalo). From this survey, it was determined that the principal commercial use of the facility was related to the operators of the football team. In addition, it was established that one major concert per year is a market norm, which coincides with the Hamilton experience when permission to hold concerts has been available.



Operators/Promoters

The principal requirement for an improved stadium facility is to accommodate the Hamilton Tiger Cats. From discussions with the general manager, we have ascertained that a stadium which would accommodate approximately 42,000 people would be adequate for their requirements. If this were to be accomplished at the Ivor Wynne Stadium, it would entail constructing a new stand, located between the goal lines, to provide an additional 8,500 well located seats. In fact, the conceptual design analysis has shown that in order properly to accommodate necessary transit facilities, a further 4,500 seats must be constructed between the goal lines to replace those lost in the western end zone, thereby effecting a material improvement in the attractiveness of the stadium. It is important to note that the construction of this new grandstand would bring the capacity of Ivor Wynne Stadium in excess of the 40,000 seat minimum required for a Grey Cup game.

From discussions with the management of the Toronto Blue Jays, we have determined that the potential for professional baseball, even a farm team, is regarded as limited, due to Hamilton's proximity to Toronto. However, because of the tremendously increased popularity of soccer, we believe that further professional support from this source might be possible in the future. If so, bearing in mind the current level of support achieved in Toronto, across Canada, and in the United States, it would seem that a stadium of 40,000 would be adequate for some considerable time into the future. Because of the uncertainty of soccer, the potential is noted but demand estimates have not been made.



Notwithstanding the improvements that might be made at Ivor Wynne in terms of use, it will still continue to accommodate primarily community recreation functions. We note that it has been used in the past for amateur sporting events and other functions such as Drum Corps parades. From the survey of users that we have undertaken, we have determined the non-professional football and association football clubs who currently make use of the facility, would like to be allocated increased time in the future. This suggests that were the Hamilton Tiger Cats to transfer to a new stadium, there would be little difficulty in utilizing all of the time available at Ivor Wynne. However, it must be remembered that the reduction in revenues to Ivor Wynne would constitute an expense to be met from City revenues in support of the increased level of community use. This might amount to approximately \$270,000 per annum, at 1979 levels of charges, and \$360,000 at the estimated 1980 attendance levels.

Survey of Comparables

From the survey of comparables, it is estimated that the stadium would have the potential for attracting two major concerts and one additional spectator event each year. However, in the case of Ivor Wynne Stadium, it has been assumed that such events will be limited to one concert only per year, in continuation of past practice.

Survey of Public

To provide more information on existing and potential markets, a public survey was carried out in September. A representative sample of 400 residents of the greater Hamilton area (primary market area) and 215 in the adjacent region (secondary market area) were contacted, as described in Appendix 2A. Questions were asked regarding their existing attendance at relevant sporting, recreational and trade show events in Hamilton and elsewhere,



existing expenditure levels and locations, and likely future attendance at such events in Hamilton, if suitable arena/trade centre and stadium facilities were available to accommodate them. The August survey also provided the basis for estimating likely impacts of such new facilities on the Hamilton economy. The findings reporting market implications are summarized separately for the stadium and the arena/trade centre in this section. The economic impacts are summarized in Section 6 of the Summary Report and in Appendix 2J.

Survey of Public

There is very substantial interest in the C.F.L. in both the primary market area (i.e. Hamilton, Ancaster, Dundas, Burlington, Grimsby and Stoney Creek) and the secondary market area (Oakville, Guelph, Kitchener, Waterloo Cambridge, St. Catharines, Brantford, Niagara Falls, Welland and neighbourhing areas). Of a total population of approximately 529,000 in the primary market area, nearly 160,000 are estimated to have attended a CFL game in Hamilton in the last year. Of a total of 718,000 in the secondary market area, approximately 60,000 attended a CFL game in Hamilton.

These estimates are derived from a sample, and are hence subject to a range of uncertainty. However, even at the low end of the range, attendance by past supporters for an average of two games per season would result in the average attendance of 35,000 used as the middle estimate in the financial analysis. With a good team in a new facility, this does not seem to be an unreasonable target.

Market Conclusions: Stadium

The principal market to be served is the Hamilton Tiger Cats. Experience drawn from other Cities suggests that attendance will depend on a number of inter-related factors:



- 1. Amount and quality of the seating. In this connection, the proposals for the improvement of Ivor Wynne will materially improve the attractiveness of that facility, bringing it to a standard which would closely approximate that of a new stadium.
- 2. Performance of the football team. This is, at least in part, a function of the calibre of players that can be attracted. This, in turn, depends on the finances available, which depends in some measure on the amount and quality of seating available. It is significant to note that the owner of the Hamilton Tiger Cats has stated that escalating sosts of operating a football franchise make it impossible to break even with the present facilities and still field a competitive football club.
- 3. Convenience of transportation/parking. Again, there is a relationship with the performance of the team. Supporters will go to considerable trouble to see a winning team, and attendance figures fluctuate markedly with team records.

In this connection, a new stadium would have an appreciable advantage over Ivor Wynne. At the best, it is anticipated that only the present number of automobiles could be accommodated at Ivor Wynne, with all new patrons being forced to either walk further or patronize the bus shuttles to be operated from remote parking lots. At worst (from the market point of view), the amount of parking could be significantly reduced to mitigate impacts on residents.

The effect on attendance would probably be minimal if the team is highly successful. Thus, in Edmonton parking is not permitted within eight blocks of the stadium, but the stadium is filled on a regular basis. If team performance drops off, the effect of increased inconvenience would be to cause attendance to fall off more rapidly than would otherwise be the case.

While the new stadium proposals also adopt the remote parking/shuttle bus principle to save on costs, the opportunity would exist, should this prove to have a very adverse effect on attendance, to expand on-site car parking. Such an opportunity does not exist at Ivor Wynne.

It should be noted, however, that increasing energy costs and consequent changes in social attitudes are likely to favour use of transit to an increasing extent in the future.

EXHIBIT 2

ARENA/TRADE CENTRE MARKET ESTIMATES

			 					_				_	_			_	_	_		_	_	_
ou	Survey of Public	Market Multiplier	2,73	.83	6.93		1.83	30 3	20.00	1.00*)) •	5.66	7.00	3.89		4	1.65	3,32		2.32	2 02	5.62
Comparison	Survey of /S Promoters	Discount Factor to achieve Promoters' Average Attendance	8.06	8.69	96.4		86.3	06.3	08.0	75.0*		90.06	96.4	93.6		(84. 8	92.5		89.2	01 1	95.5
	F Public	Average Attendance	120,000	26,500	194,000	1	80,000	140 600	763 500	186.500		74,500	112,000	124,500	6	33,000	199,000	99,500		79,000(66,000)	30 500	260.000
	Survey of Public	Performances	40	20	3	e ;	75	ر 12 ا		20	2	6(3)	10	5	4	07	2	10		2(6)	00	10
	omparables	Average Attendance	10,000-14,800	6,500- 9,500	0	3,500- 7,500	10,000-13,000	000 6 000 4	4,000-7,000	5,000-12,000		4,500-9,000	0	0		3,500-6,000	3,000-8,000	5,000-10,000		0	-	- ·
	Survey of Comparables	Performances	40	15-35	0	2~2	8-12	0 0 0	3-10	15-35	2	2-8	0	0		62-9	1-9	4-16		0	c	٠,
	Promoters	Average Attendance	11,000	8,000	7,000	000,9	11,000	11,000	000,00	2,000		7,000	4,000	8,000	i d	000,4	000,7	7,500		8,500	003 6	2,500
	Survey of Promoters	Performances	40*	50	es	က္	12	71	•	50		9	10	6	ć	0.7 0.7	7	10		က	00	0.7
		Туре	NHL	Pro-Wrestling	Tennis	Other Events	Ice Follies	Disney on Ice	Globe Trotters	Musical Concerts	Closed Circuit	Boxing	Roller Derby	Indoor Soccer	Pro Lacrosse	(Minter)	Ethnic Shows	Pro Basketball	Closed Circuit	Soccer	Lacrosse	Exhibitions

*Excludes possible play-off games

4. Price of tickets. Economic conditions and associated reductions in real disposable income suggest that there is little opportunity for real increases in ticket prices in the near future. Supporters are prepared to pay somewhat more to see a winning team. The bulk of future revenue increases must, however, derive from increased attendance rather than higher priced tickets.

These factors lead to the conclusion that bearing in mind the importance of mitigating impacts on local residents around Ivor Wynne, there is appreciably greater risk of smaller attendance associated with the improvement of that facility than there is with the construction of a new stadium. However, a highly successful football club could probably look to filling either of the stadiums examined, on a regular basis.

Arena/Trade/Exhibition Centre

Analysis of Comparables

The analysis of comparables applies to the arena function. Contact was made with the operators of the following arena facilities: Pacific Coliseum, Vancouver; Edmonton Coliseum; and Ottawa Civic Centre.

The information obtained from these interviews was collated in terms of the actual attendance, adjusting as appropriate for the capacity of the facility surveyed, to develop a composite use/attendance profile for a facility with the Hamilton accommodation specifications.

This profile is presented in Exhibit 2, opposite, where it is compared to the use/attendance profiles developed through the other two approaches.

EXHIBIT

ANALYSIS OF POTENTIAL EVENTS IN THE PROPOSED HAMILTON ARENA

REQUIREMENTS				Giant Screen - 20' x 30'		Soccer Truf	Giant Turf	Boards over the Ice	Turf	Floor, baskets, etc.	Turf	Glant Screen		(Promoter has exclusive rights for some	<pre>(concessions: (programs, noveities, cotton (candles and ice cones.</pre>	Naked girders for rigging, access to floor area for 5 ton trucks; backstage storage space - min. 100' x 30'	Floor; baskets, etc.	(Easy trucks access to stage; adequate (power;stage;high ceiling;adequate dress-ing room; abundant storage space.			40,000 sq. ft. Net (about 65k Gross) in arena and Trade Centre and Convention Centre; close proximity and even physical connection between the facilities; easy access to floor for loading and off-loading.
POTENTIAL	Hfgh	High	High	IIIgh	High	Medium	Medium	Medium	Medium	Low	Low	Low	High	High	High	High .	High	High	Medium		High
EXPECTED ATTENDANCE	9 - 10,000	4,000	8,000	5 - 7,000	7,000	8,000	7,000	4,000	5,000	7 - 8,000	3,500	7 - 10,000	000*9	11,000	mer 11,000	000*9	15,000	7 - 8,000.	7,000		N/A
SEASON/NONTH	OctMay	OctMay	Year Round	May/June	Year Round	Fall/Winter	Year Round	Jan June	Jan April	Oct April	May - Sept.	Fall/Spring	SeptDec., MarMay	Jan Feb.	Late Spring/Early Summer	Feb Mar.	Late October	Year Round	Oct April	,	Year Round
NO. OF ARENA DAYS	45 (1)	45 (1)	20	2 (2)	m	6	9	10	20	10	20	ĸ		9	6 La	m	1	. 50	2		70
NO. OF PERFOR- MANCES PER YEAR	45	45	20	6 (2)	က	6	9	. 01	20	10	20	2	m	12	12	7	1	20	2		10
TYPE OF EVENT	1. SPORT - NHL Games	- Junfor "A" Hockey	- Pro Wrestling	- Closed-Circuit Soccer	- Tennis	- Indoor Soccer	- Close-Circuit Boxing	- Roller Derby	- Winter Pro-Lacrosse	- Pro Basketball (NBA)	- Summer Pro-Lacrosse (CAL League)	- Closed-Circuit Soccer	- Other Events	- Ice Shows (Follies)	- World of Disney on Ice	- Circus	- Harlem Globe Trotters	- Musical Concerts	- Ethnic Shows	III. EXHIBITIONS/TRADE SHOWS - Major Trade and Public	Show

^{(1) -} Excluding training but including possible playoff games

^{(2) -} Including 16 World Cup games once every 4 years and 3 - 5 European Cup and other International games every 2 years

Uperators/Promoters

Exhibit 3 indicates the result of the market analysis undertaken with respect to arena potential. It is based on interviews with promoters in the Hamilton area, and also on findings derived from the survey of comparative arenas and stadiums.

Potential has been ranked in three categories: high; medium; and low. The high category is comprised entirely of sporting events, ice shows, concerts, and other events such as a circus. These would, it is estimated, account for approximately 120 days per annum in total. Of these, 40 days are associated with hockey (excluding possible play-off games); and indications are that it would be possible to relocate an N.H.L. team from another city if suitable facilities were available in Hamilton and if owners of the Toronto (and possibly the Buffalo) NHL teams were prepared to relax their territorial prerogatives. While conditional support for such a move has been promised by the President of Maple Leaf Gardens Limited (the most directly affected club), the position of Buffalo remains unresolved.

In addition to these highly ranked possibilities, closed circuit boxing and lacrose might add about fifty days per annum, ranked in the medium category.

These medium and high possibilities taken together comprise the best estimate of arena use. This best estimate is summarized on Exhibit 4, opposite. As will be seen, the figures are extremely close to those derived from the Survey of Comparables. For this reason, the operators' promoters' estimates have been adopted as the basis of further analysis since they

EXHIBIT 4

ARENA/TRADE CENTRE BEST ESTIMATE

	Survey of	Promoters	Survey of (Comparables
Туре	Performances	Average Attendance	Performances	Average Attendance
NHL Pro-Wrestling Tennis Other Events Ice Follies Disney On Ice Circus Globe Trotters Musical Concerts Closed Circuit Boxing Roller Derby Indoor Soccer Pro Lacrosse	40 20 3 3 12 12 12 7 1 20	11,000 8,000 7,000 6,000 11,000 6,000 15,000 7,000 4,000 8,000	40 15-35 0 2-5 8-12 0 3-10 1 15-35	10,000-14,800 6,500- 9,500 0 3,500- 7,500 10,000-13,000 0 4,000- 7,000 9,000-16,000 5,000-12,000 4,500- 9,000 0
(Winter) Ethnic Shows Pro Basketball	20 2 10	5,000 7,000 7,500	6-25 1-9 4-16	3,500- 6,000 3,000- 8,000 5,000-10,000

relate directly to Hamilton conditions, and are well within the reliability range of the Survey of Comparables.

In addition, pro-baseball, summer lacrose and indoor soccer have been mentioned as possibilities, and might account for an additional days, although the likelihood of this is considered to be low.

Operators' and promoters' estimates constitute the most reliable source of information for trade and industrial shows. These could make an approximately equivalent contribution in total. One major promoter suggests that his organization might make use of the facility for up to 112 days with 16 exhibitions per annum, a more conservative estimate being 70 days in 10 shows. This promoter currently holds trade shows in Hamilton, and believes that it would be possible to integrate both exhibition facilities and sporting use. He notes that the new facility would make it possible to hold new types of exhibition in Hamilton, such as the Home Builder Show, for which none of the currently available facilities are adequate in size.

A second promoter also considers Hamilton a possibility for future trade, business and industrial shows, with a potential of approximately 28 days in total. This is ranked in the low potential category.

Survey of Public

The survey of the public shows that there is tremendous expressed support for all of the events identified. Exhibit 2 shows the average attendance at each category of event estimated from the survey. Experience with this type of response indicates that stated intentions must be discounted by 75% to provide an estimate of likely attendance. To achieve



the attendances derived from the first two approaches far higher discount figures must be used. This is an indication of market strength, and is worth examining in more detail.

In Exhibit 2 the column "Market multiplier" provides a measure of this market strength. The market multiplier is the number of times the average attendance as derived from the survey of promoters is exceeded, after a 75% discount factor has been applied to the public survey.

A market multiplier of 1.00 indicates that the public survey confirms the promoter's demand estimates. A multiplier of less than 1.00 indicates softeness of market demand. Multipliers in excess of 1.00, indicate a more robust market condition.

In only one case in Professional Wrestling, is there an indication that the attendance estimated by promoters is optimistic. For musical shows, it is not possible to differentiate those that might be held in other facilities, but the demand is sufficiently high to provide support for the promoters' estimates. In all other cases, demand is significantly higher then estimated by promoters. For example, the NHL multiplier of 2.73 indicates an average demand for 30,000 seats per game $(11,000 \times 2.73)$. This would fill the 15,000 seat arena twice over.

The conclusion is that there is every likelihood that the promoters' estimates of attendance, and hence the financial analysis, are conservative for any particular event. However, it must be recognized that if all of the events listed were available, patrons would begin to be selective between events, i.e. a fan who might attend 10 NHL matches if these were the only choice, might replace one hockey match with tennis if this were available. There is no measure available as to how patterns of



choice of activity may evolve. Hence, the promoters' estimates, which appear conservative, have not been modified.

Conclusions

The Survey of Promoters and Survey of Comparables are strongly mutually supportive, and indicate that there would be substantial demand for all of the types of event considered. The Survey of the Public indicates that for events of any one type, the demand is likely to be significantly higher than the promoters estimates. When account is taken of the fact that all events may be available, the demand in total would probably be less than the sum of all of the demands for individual events, as estimated from the public survey. Notwithstanding this, the survey of the public shows so much demand that it is probable that promoters estimates are, if anything, conservative.

Combined Stadium and Arena

The market demand for a domed stadium/arena combined complex has also been examined. From the analyses undertaken it appears that the only major demand, apart from some concerts, for a facility with in excess of 20,000 seats, is from football. For other events, attracting audiences which, for the most part, lie in the 5-15,000 range, such a facility would be a drawback, since the facility would appear empty.

The need to supplement the arena type activities by trade shows requires a downtown location. There is no site in the appropriate location that could accommodate a joint facility. Further, the CFL field with its long end zones is less suited to a combined facility than an NFL field.

This combination of unsuitability to demand and difficulties of implementation led to the rejection of the combined complex.

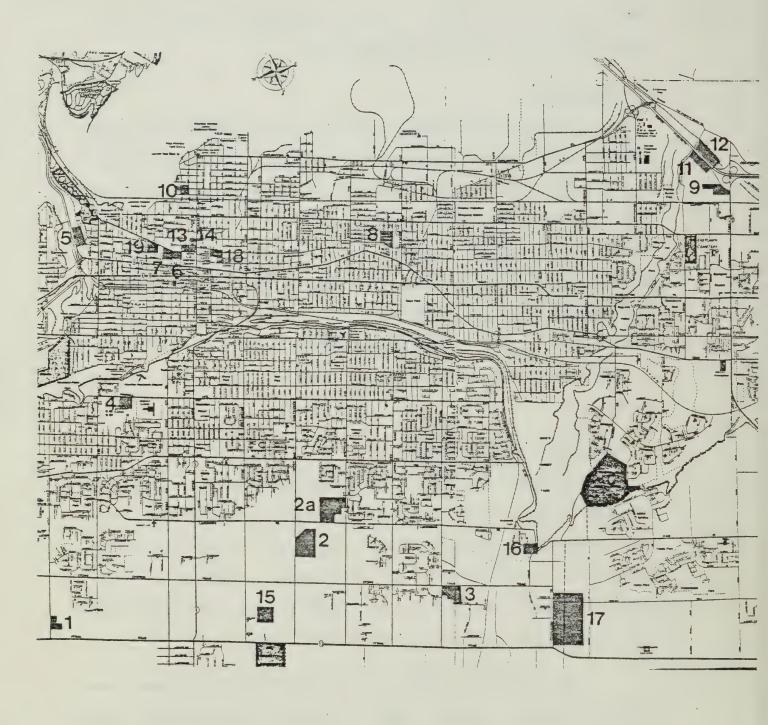


Exhibit 5



Potential Sites

3. SITE COMPARISONS

A total of 19 potential sites were initially identified and evaluated in Phase 1 of the study. At the end of Phase 1 a short list of preferred sites for the stadium and for the arena was prepared for detailed evaluation in Phase 2. Subsequent to the short listing of preferred sites, an additional site was proposed, located in close proximity to Site #2. Since this site met Phase 1 criteria, it was assigned #2a, and included in the Phase 2 evaluation. All 20 sites are shown on Figure 5, opposite, and the results of the Phase 1 evaluation are shown on Exhibit 6, overleaf.

The sites range in size from just under 4 acres to in excess of 100 acres. However, since the size of site required for a specific facility has been found to vary with location, actual acreages are not shown on Exhibit 6. Instead, as will be seen, a letter code has been given in which capital A identifies sites suitable for an arena only, B identifies sites which are large enough to accommodate either a stadium or an arena, and C identifies those sites which could accommodate a combined facility.

In Exhibit 6, each site is ranked on a scale of three with respect to locational attributes, site specific attributes, and accessibility. Locational attributes are a composite of availability of municipal services, availability of support facilities such as restaurants and stores, and impacts on adjacent land uses. Site specific attributes represent a composite of physical conditions including the shape of the sites, topography, and sub soil conditions to the extent that these are known, and ownership and potential ease of assembly of land. Accessibility, which is evaluated

EXHIBIT 6

ANAI YSTS	0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
& ACCESSIBILITY	
SITE ASSESSMENT	

Total Arena Stadium	6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
2	
Accessibility ena Stadium	-00 11001 11011
Acce	- <u>*</u> 2*- mm 2- 2-mm2mm
Site Specific ² Attributes	ma-aa mammm 22-22 -22-
Locational ² Attributes	- maaa mmaaa ama ma
Size	UUUUU KKMUK UUKKU UUKK
Site	10 10 10 10 10 10 10 10 10 10 10 10 10 1

Score increases by one unit with introduction of ICTS service

A = site large enough for arena only B = site large enough for stadium only C = site large enough for stadium and/or arena

sites are ranked as follows: 3 = high suitability
2 = medium suitability
1 = low suitability

separately for potential stadium and arena uses since these impose significantly different loads on the transportation system, is a composite of transit access, road access, and parking.

Evaluation of Stadium Sites: Phase 1

As will be seen from Exhibit 6, three sites emerge as being the most favourable. These are Site 8, the existing Ivor Wynne Stadium; Site 2, located wouth of Limeridge Road on Hamilton Mountain, and Site 9, located on the west side of Centennial Parkway between the C.N.R. and the Queen Elizabeth Way.

Site 8, the existing Ivor Wynne Stadium, falls somewhat short of the optimum in terms of locational attributes. This is primarily due to the impact of the stadium on adjacent residential land uses. In terms of accessibility, although well served by low capacity transit, it is not linked to the ICTS corridor currently being proposed and there is significantly less off-street parking than at the other two sites:

Site number 2 is an excellent site with good accessibility and capacity for on-site parking, which is potentially capable of being served by the I.C.T.S., and is comparatively close to the sub regional shopping centre being developed north of Limeridge Road. Its principal drawback is that it is only partially owned by the City, the balance of the site being held by the Ontario Land Corporation.

Site number 9 is virtually completely lacking in support facilities to meet the requirements of those visiting the stadium. It is also located in an industrial area, and there are indications that open storage of scrap on a site in the immediate vicinity may be commenced in the not



too distant future. Site 9 is currently unserved by public transit, and, though its location in close proximity to the Queen Elizabeth Way may appear advantageous, there would be difficulties in obtaining direct access into the site. However, notwithstanding these drawbacks, it must be noted that other sites evaluated are significantly less favourable than Site 9.

On the basis of this analysis it was recommended and agreed that Sites 2, 8 and 9 be retained for detailed analysis in Phase 2.

As noted earlier, Site 2a was subsequently added to this list.

Evaluation of Sites for the Arena: Phase 1

In terms of potential for the development of an arena, Site 6, located on the east side of Bay Street North between King Street West and Merrick Street, is ranked the highest. In the summary analysis it achieves a maximum possible score of 9, although it must be noted that Site 6 is of the minimum size for an arena facility, being approximately 4 acres in extent. There is a potential problem in that important elevations to York Boulevard, the hotel and other Jackson Square developments could be unattractive; but these appear capable of a design solution.

As will be seen from Exhibit 6, three other sites achieve a score of 8, These are Site 7, located on the west side of Bay Street North between Market Street and York Street; Site 14 located between Cannon Street and York Blvd. between McNab and James Streets; and Site 18 located between King William Street and Wilson Street, and bounded by Catherine Street and Hughson Street on the east and west respectively. All of the sites are highly accessible, and possess excellent locational attributes. In terms of site specific attributes both Site 7 and Site 18 are partly owned by the City, and partly held under private ownership,

PREFERRED SITES FOR ARENA/TRADE CENTRE

thus posing some problems of assembly of the necessary site area. However, in detail both of these sites are ranked more highly than Site 14. This is because although the City owns a small part of the Site 14, the ownership of the balance of the land is fragmented, and assembly would be difficult and costly.

On the basis of this analysis, it was considered desirable to retain sites 6, 7 and 18 for more detailed evaluation in Phase 2. These three sites are illustrated on Exhibit 7.

Other Factors

The recommendations for short listed sites made above were confirmed by the analysis of markets, financial considerations and funding sources.

The market analysis showed considerable potential for increased revenues if a combined arena/trade/exhibition centre were constructed to complement the new convention facilities in Jackson Square. Further, analysis of potential funding sources indicated that the development of such a combined facility would create the potential for tapping sources of federal funding that would not otherwise be available. To achieve the benefits envisaged it would be necessary for the new facility to be in close proximity to the convention centre, i.e. in the downtown area. All of the short-listed sites fulfilled this criterion.

Financial analysis demonstrated that by far the least expensive solution for the new stadium facility would be to expand and improve Ivor Wynne Stadium. This reconfirmed the need to retain Site 8 in the Phase 2 analysis.

Finally, the question of a joint facility including both stadium and arena, e.g. on Site 8, was considered. However, the need to develop



an arena/trade/exhibition complex rather than a simple arena; and the essential relationship between such a complex and the convention centre effectively eliminated this possibility from further consideration.

Evaluation of Stadium Sites: Phase 2

Of the potential sites for a new stadium, Site 2 proved to be most suitable. Its advantages include:

- Partial ownership by the City, with the balance of the site held by one owner, i.e. the Ontario Land Corporation.
- . Conformity to Regional and City Official Plans.
- Proximity to a new shopping centre north of Limeridge Road, and the planned Regional Road.
- . Good accessibility, with the possibility of transit services in the future through the Intermediate Capacity Transit System (I.C.T.S.).
- Proximity to residential areas whose populations could make use of the facility.

Site 2a shows many of the advantages of Site 2 with respect to accessibility, proximity to support services, and proximity to population. However, certain major drawbacks have been identified:

- . The site is under multiple ownership, and thus would require assembly and purchase at significantly greater cost than Site 2.
- . The development of the site would impact on existing residential uses, thus restricting design flexibility as compared to Site 2.
- Existing Official Plan and zoning designations would have to be changed.
- The developers of the adjacent shopping centre, who relied on the Official Plan and zoning designations in making their investment decisions, have raised objections to the development of Site 2a for a stadium.

Site 9 also proved to have inherent problems. Major drawbacks include:

. Insufficient acreage available to fulfill the parking requirements, which would necessitate the acquisition of additional lands for parking. This partially offsets the advantage accruing from the fact that the site is owned by the City.



- A comparatively unattractive location in an industrial area, immediately adjacent to the Region's garbage transfer station, and near to a planned open scrapyard.
- . Relative inaccessibility by public transit, present and future.

In summary, the detailed Phase 2 evaluation demonstrated that Sites 2a and 9 were significantly less satisfactory than Site 2. Site 2 was therefore retained to be carried through the conceptual design stage.

However Site 8, the existing Ivor Wynne Stadium, also enjoys numerous advantages, not the least of which is the savings in capital costs as compared to the construction of a new facility. The stadium:

- . Is reasonably well located and accessible by car and transit, although it is not located within the I.C.T.S. corridor.
- . Has a number of commercial facilities near by.
- . Is situated within a residential area whose population can benefit from the facility.
- Maximizes the use of existing facilities, an important consideration in the context of total investment required to develop both a stadium and arena/trade/exhibition centre.

If the social and the environmental impacts occasioned by the stadium could be mitigated through design and through the implementation of appropriate transportation policies, this alternative would provide the most economical approach to achieving a stadium of major league calibre.

Site 8 was therefore also carried forward to the conceptual design stage.

Evaluation of Sites for Arena/Trade Centre: Phase 2

The three short listed sites for the the arena/trade centre are shown on Exhibit 7. All are located within the downtown core of the City, in relative proximity to the convention centre.



The analysis of the sites demonstrated that Site 6 is clearly the most suitable for an arena/trade centre. It enjoys important advantages, including:

- . Complete ownership by the City.
- . Applicable zoning and official plan designations.
- . Closest proximity to and best relationship with the convention centre it is intended to complement.
- . Close relationships with proposed office tower and hotel, which will serve as links between the convention centre and the arena/trade centre.
- . Meets important design objectives including the completion of the Jackson Square development, and the development of a land mark building on a prominent key site in support of the policies enunciated in the Central Area Plan. The possible design problems identified in the Phase I analysis have been shown to be capable of resolution.

Site 7 was ranked second highest in the analysis. It is relatively close to the convention centre, although it is separated from Jackson Square proper by Bay Street, a planned major road. The effects of this might be mitigated by incorporating into the design of the facility a pedestrian access across Bay Street to provide a link to Jackson Square and the convention centre.

Although Site 7 would be suitable for the arena/trade centre, it suffers drawbacks in comparison to Site 6:

- . A substantial portion of the site is in private ownership, and hence acquisition of extremely valuable land would be necessary.
- . A zoning amendment would be required.
- . Napier Street between Caroline and Bay Streets would have to be closed, and a by-law to that effect would also be required. Also piped services would have to be relocated at considerable cost.



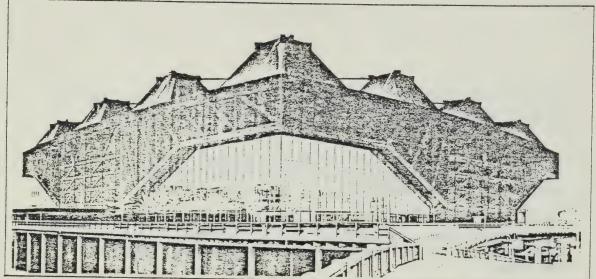
- . The warehouse building fronting on Caroline Street in the southern part of the site would have to be demolished, even though it is in good condition and occupied by Canada Post.
- Development of the facility on this site might impact on residents of the modern apartment building at the corner of Caroline and Market Streets immediately to the south of the site.
- . It is more distant from the convention centre and notwithstanding the possibility of a pedestrian link is separated from the convention centre and the main Jackson Square development by Bay Street.

Site 18 proved to be the least suitable for the development of an arena/trade centre. Its most serious disadvantage is its distance from the convention centre, and the consequent difficulty in using the facilities in a coordinated manner. Other major drawbacks include:

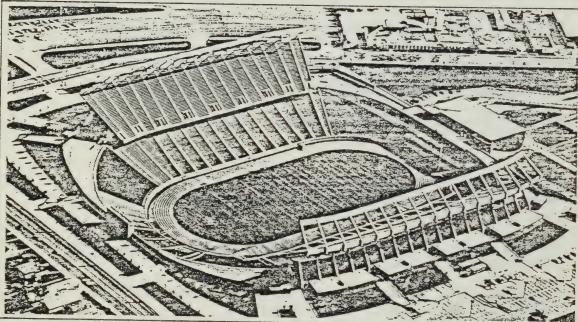
- . Distance from the core area and related services and facilities which might derive economic benefit from the construction of such a facility.
- Difficulty of crossing John Street which is designated a major north/south road in the Central Area Plan.
- . The presence of the Wesley Centre on the northwest corner of Rebecca and John Streets, within the site.
- . Presence of the MacKenzie Convalescence Centre adjacent to the site, which would be affected by noise and traffic.
- Difficulty of acquisition since there are a large number of small lots under individual ownership in addition to the land owned by the City and one other major land owner.

Conclusion

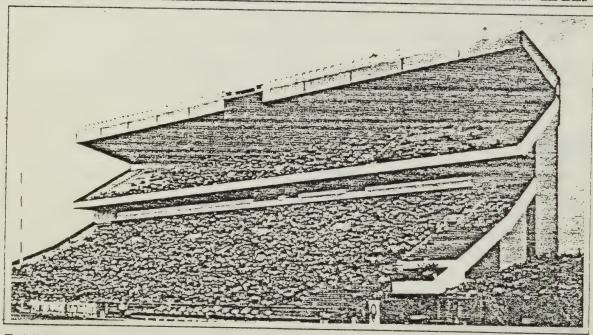
As a result of this analysis Site 18 was eliminated as a potential site, and Sites 6 and 7 carried forward to the concept design stage.



Atlanta Omni



Commonwealth Stadium Edmonton



Taylor Field Regina

Exhibit

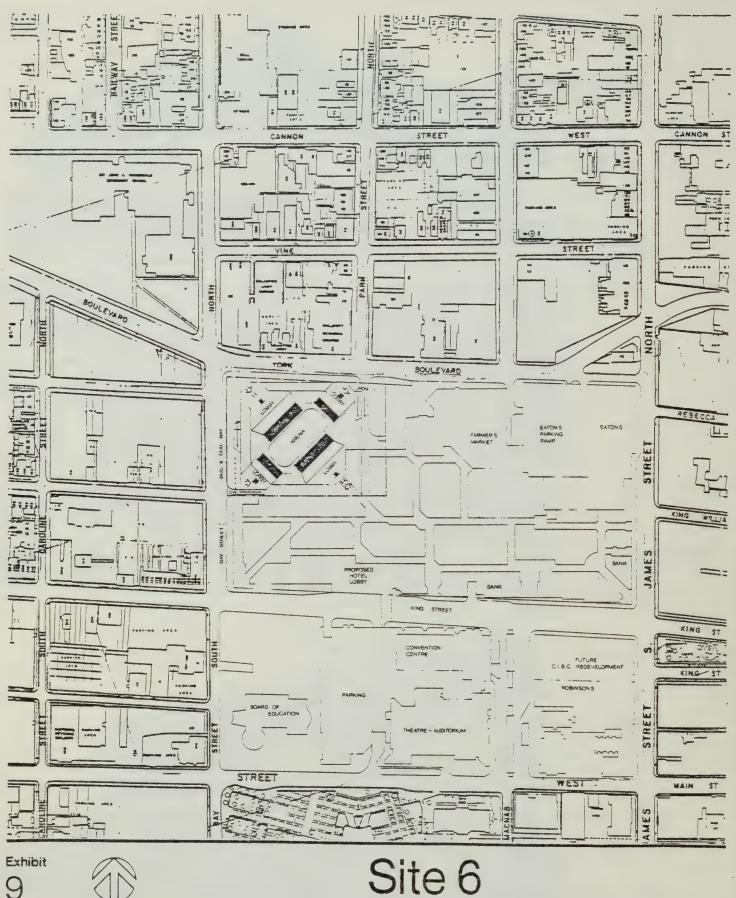
8 Comparable Stadium/Arena Facilities

4. DESIGN CONCEPTS

Functional site plans and schematic building designs have been prepared for each final candidate site. The purpose of this design exercise is to demonstrate how the facility would achieve the physical requirements on each site and what the resulting architectural character of each might be. As a result, three schematic facility designs have been prepared and evaluated:

- a new multi-purpose civic arena/trade centre located on Site 6 (Jackson Square), with a seating capacity of approximately 15,300. The design demonstrates how this facility would be directly connected with the Jackson Square retail complex and a proposed hotel/office complex, and thus be suitably integrated into the larger downtown civic complex. Through this integration a direct link with the new convention centre one block to the south would be provided.
- a new athletic stadium designed to CFL standards and a capacity of 42,500 seats between the goal lines, on Site 2. The site plan includes parking for some 4,000 cars
- as a less costly alternative to a new stadium, a renovated and expanded Ivor Wynne Stadium at its present location designated as Site 8. Approximately 12,000 additional seats would be added to the south side of the field between the goal lines and improvements would be made to on-site pedestrian and bus circulation.

In the case of each of these designs an existing facility, built recently to specifications similar to Hamilton's requirements, has been used as a prototype and adapted to the particular conditions of our candidate sites. Each prototype provides the basic dimensions and cost parameters from which our schematic designs have been derived. The following prototypes were used in preparing schematic designs:





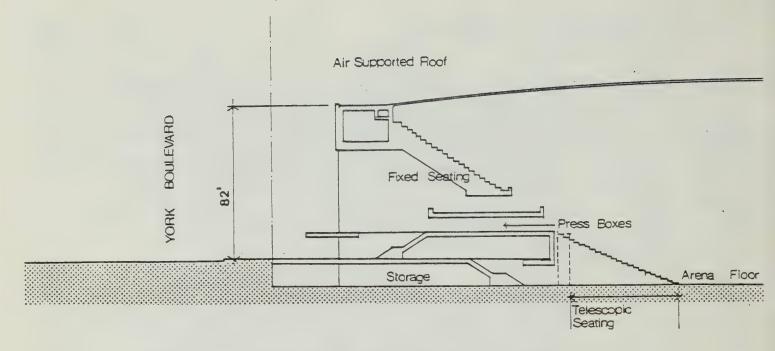
Arena Street Level

- in preparing a schematic design for a new multi-use civic arena on Site 6, the Omni Coliseum in Atlanta was selected as the prototype; it is similar in size (approximately 16,000 hockey seats), accommodates a variety of arena and trade exhibition functions, and is successfully integrated into a larger downtown civic centre complex which includes another nearby trade and exhibition facility and a hotel complex. The Omni was designed by architects Thompson, Ventulett, Stainback and Associates, Inc. and completed in 1972.
- in preparing a schematic plan for a new stadium on Site 2, Edmonton's Commonwealth Stadium was selected as the prototype; it is a major new (1978) facility primarily designed to CFL specifications and provides approximately 42,500 permanent seats between the goal lines. The building was designed by Bell, Spotowski Architects Limited.
- in preparing the site plan and schematic design for improving and expanding the existing Ivor Wynne Stadium as an alternative to building a new stadium, the expansion to Regina's Taylor Field, completed this year, has been selected as the prototype; a basic structural solution of adding 8,500 seats behind existing stands has been applied to the south side of Ivor Wynne Stadium with similar results. The Regina project was designed by Mitchell, Phillip Associates Limited and engineered by Reid, Crowther and Partners Limited.

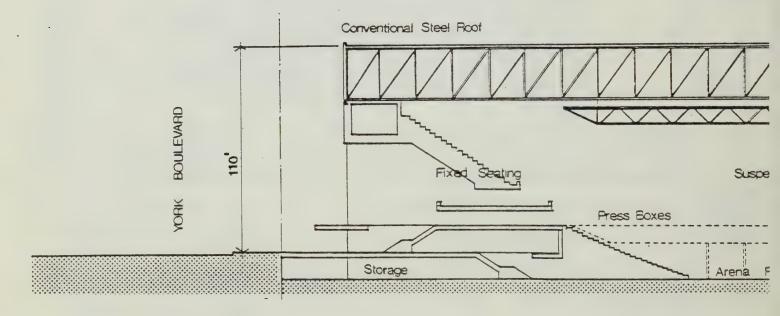
Photographs of these three facilities appear as Exhibit 8. The results of these three schematic designs are illustrated in greater detail in Appendix 2H. In general, each has been found to satisfy the functions required. Our schematic deisngs incorporate certain architectural characteristics and reflect specific conditions. Relevant considerations are summarized below.

Arena and Trade Centre on Site 6

A schematic plan and elevation of the proposals is incorporated as Exhibits 9 and 10. Relevant design considerations are as follows:



SECTION A-A, Showing Air Supported Roof



SECTION A-A, Showing Conventional Roof

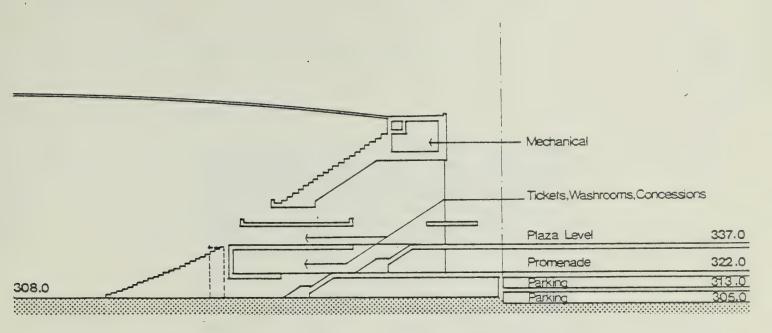
Exhibit

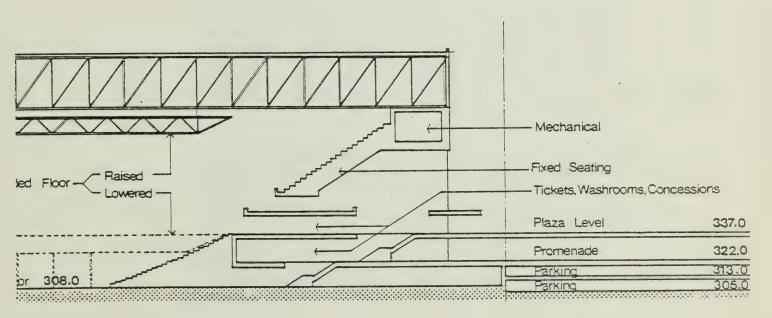
10



Site 6 Arena Sections

Hamilton Stadium/Arena Feasibility Study IBI Group







Flexibility of Use

- typical of major downtown arenas being developed throughout North America, this facility is to be designed for a variety of uses including athletic events such as major league hockey, basketball, boxing and indoor soccer; family entertainment including circuses, ice shows, stage shows; rock concerts; conventions; major trade exhibitions such as boat and auto shows, etc.
- flexibility in design of this facility is therefore essential. Consideration in the design has been given to: provision for telescopic seating which permits the arena floor to expand from 17,000 square feet to 60,000 square feet; changeable lighting and acoustical controls; adaptable concession and circulation areas; adaptable airconditioning systems; ample storage and service areas

• Seating Capacity

- according to the particular activity to be accommodated, the building design can accommodate a variety of seating arrangements which vary from a capacity of 15,300 seats when the main floor ice surface is in use, to a maximum capacity of approximately 16,750 seats by utilizing the arena floor for seating as well

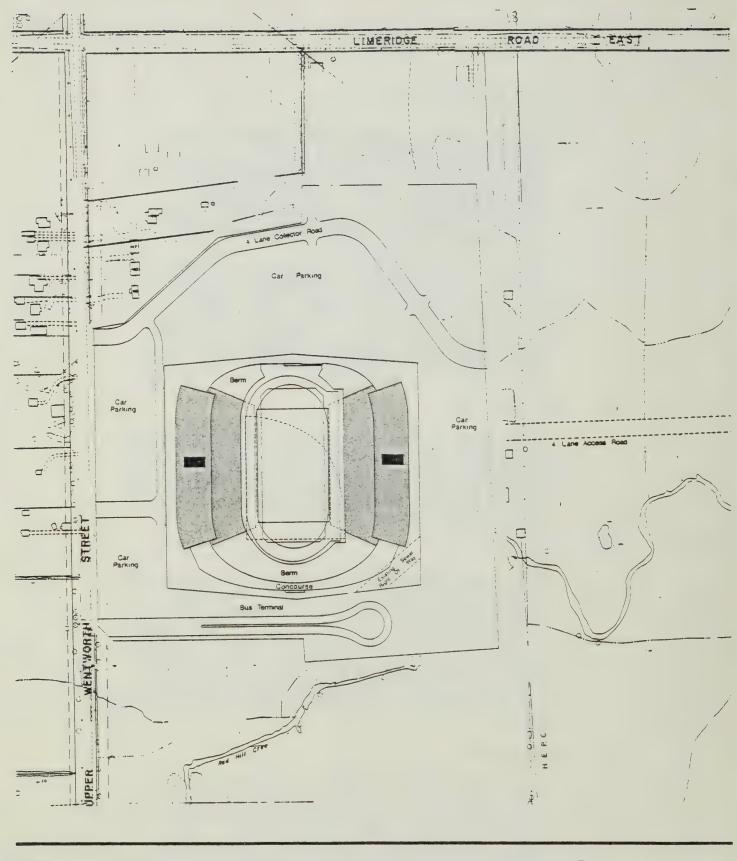
Pedestrian Access

- major pedestrian entrances occur at both the street level and the (Jackson Square) plaza level. Pedestrian connections are provided to main entrance lobbies from the underground parking garage in Jackson Square. Thus the arena facility is integrated into the main pedestrian network of the overall civic centre complex. Future pedestrian connections to the proposed rapid transit through the Jackson Square concourse will be provided.

A direct pedestrian link is provided to the new convention centre.

• Service Access

- truck access from York Boulevard to the basement level of the arena is provided via the existing ramp adjacent to Jackson Square. A second truck and car access ramp connecting to Bay Street from the basement level of the arena is proposed which would connect the existing basement level service network across the site to Bay.



Exhibit



Site 2 Stadium

Hamilton Stadium/Arena Feasibility Study IBI Group

Structure

- in order to achieve clear site lines throughout the interior of the arena, a clear span of approximately 360 feet is required to support the roof of the facility. Two alternative structural approaches have been investigated: a) a conventional steel truss structure supporting a conventional built up roof; b) an air supported stainless steel membrane roof
- subject to more detailed engineering design analysis, the air supported structure appears to have two advantages: reduced capital cost, and an effective reduction in the height of the building by approximately 28 feet.

External Appearance

- massing of the proposed arena is in keeping with the scale of other buildings in the downtown civic complex. However careful consideration must be given to the fenestration of the building to ensure visual interest and proper scale. The proposed design articulates the various street level and plaza level activities within the building including retail shops, concessions and circulation and exposes these activities by the use of glass. In particular, the major entrances at the corner of York/Bay and level at the plaza are to be emphasized with glass thereby dramatizing the interior activities from the plaza and from the diagonal vista on York Boulevard moving towards the building from the northwest. The plaza level entrance will add vitality and activity to the plaza as well as from the shopping promenade at street level within Jackson Square.

New Stadium on Site 2

A schematic plan of the new facility is incorporated as Exhibit

11. Design considerations are as follows:

Range of Uses

- It is assumed that the primary use of a new athletic stadium will be for CFL football. The stadium is, therefore, designed to maximize the number of spectator seats between the goal lines and minimize the distance between the seats and the football playing field.



- Additionally, the new stadium is designed to accommodate specifically track, soccer and baseball. The design could be further modified to provide for telescopic seats which extend over portions of the running track to provide seats as close as possible to the football field. As designed, the new stadium would accommodate a major league baseball field equal to Shea Stadium in New York, which has the standard 420 foot left and centre field depths but which has a less deep right field depth of 302 feet. While less than ideal, this is acceptable within major league practices.

Seating Capacities

- The stadium is designed to provide approximately 42,500 seats between the football goal lines. For purposes of baseball, approximately 12,000 seats would be available along the left base line in the existing stands, and stands along the right base line (south end zone) could be added to seat another 6 to 8,000. The east stands could be used for additional outfield seats.

• Configuration

- as noted above, the basic configuration of the new stadium design is to optimize the requirements of CFL football, and therefore seating is located between the goal lines. While a number of configurations were considered which would attempt to optimize both major league football and baseball, it was found that serious compromises result for either sport, and therefore because football in the case of Hamilton is of primary concern, the design configuration of this stadium is aimed to optimizing the football requirements in preference to the future possibility of also accommodating baseball.
- the football field is ideally oriented along the north-south at optimizing the football requirements of sunlight glare on the players; a possible baseball diamond is likewise ideally oriented so that its axis from home plate through the pitcher's mound has a northeast-southwest alignment.
- the main spectators stands and playfield is depressed below the natural grade level by approximately 50 feet, achieving two advantages: a) entry at grade brings the pedestrian at the mid point in the stands, so that half walk down to seating and half walk up to seating; b) the visual scale of the stadium from outside is reduced, thereby reducing the mass of the overall structure.

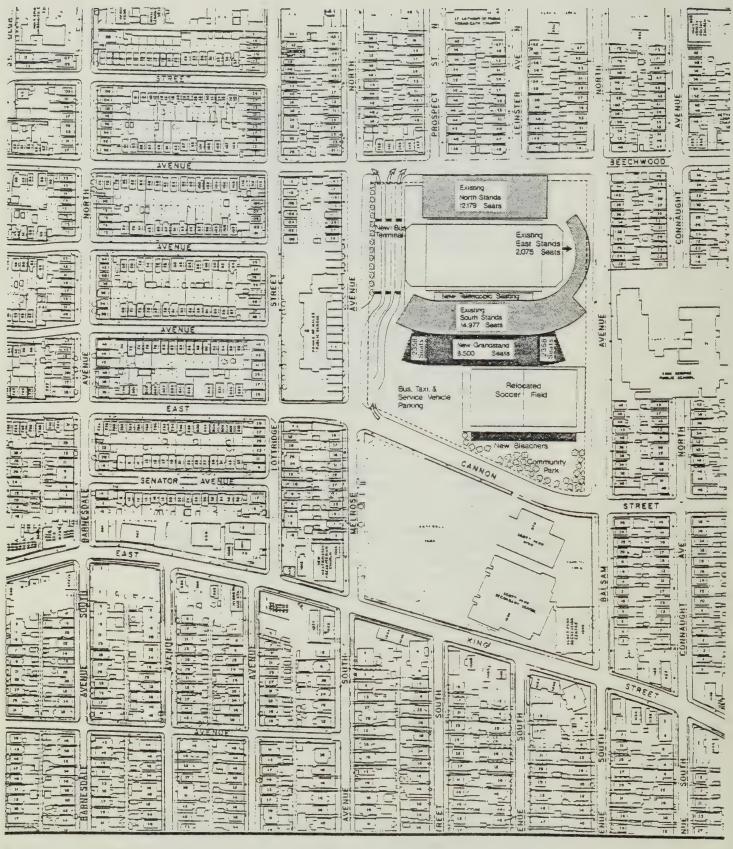


Exhibit 12



Site 8 Ivor Wynne Stadium

Site Access

- the site plan provides for parking for approximately 4,000 cars served by a new east-west thorough road which provides two major points of access from Upper Wentworth Street. A third and totally separate point of access and drop-off area is provided for buses.

Ivor Wynne Stadium Alternative on Site 8

Exhibit 12 illustrates the proposals for Ivor Wynne Stadium in relation to adjacent development. Design considerations are as follows:

Use

- a renovated and expanded Ivor Wynne Stadium, as an alternative to building a new stadium on Site 2, would be designed primarily to accommodate CFL football
- additionally, a running track of minimum standard could be provided for field events by replacing a portion of the existing south stands with telescopic seating which could be pushed back to make room for the track. The playing field will also accommodate a regulation soccer field. The design will not however, accommodate a baseball field to official standards.

• Capacity

- the design for expanding the stadium would result in a total capacity of approximately 42,400 seats, of which approximately 39,000 seats fall within the cone of vision between the goal lines. This is achieved by constructing a new higher grandstand behind and partially cantilevered over the existing south side stands.

Structure

- the additional stands on the south side would be self-supporting, built within the space which currently exists between the south stands and the smaller stands on the north side of the existing Brian Timis Play Field. The smaller stands would be relocated to the south side of the play field. This structural solution has been recently achieved in a similar situation of expanding Taylor Field in Regina.



Access

- the plan proposes a new major transit access and turnaround area from Melrose Avenue, from which pedestrians would move into the north and south stands. An adequate area to accommodate buses and pedestrians is essential to this design in view of the significant dependence upon transit usage
- access to the new grandstand will be via a system of gradual pedestrian ramps designed on the south side of the new structure.
- expanded service and staff access and parking off Melrose Avenue is provided by moving the Brian Timis Play Field to the east and providing new stands for this play field along its south boundary. The design of these stands would also provide a sheltered seating area facing onto the public park at the corner of Melrose and East Cannon Street.

Visual Impact

- the additional structure on the south side of Ivor Wynne Stadium would increase the height of the stadium in that area by approximately 110 feet. While this is a considerable increase, the visual impact from adjacent properties is lessened by the fact that it is located towards the centre of the site.
- an intensive landscaping program is included in the site design proposal in order to buffer the service areas and the existing edge conditions of the stadium. This landscaping program would include improvements to the existing public park at the corner of Melrose and East Cannon.

Renovations

- in addition to the construction of new grandstands, the design calls for renovations and improvements to the existing grandstand facilities. According to the availability of funds, renovations may either be minor or major. Certain minimal improvements are necessary both to the structure and the public facilities. More extensive renovations would be desirable if monies permit, which would bring the quality of the existing stands to that of the additional new stands, including the quality of seating, signage and finishes.



Conclusions

From a conceptual design point of view, the development of a new multi-use civic arena and trade exhibition facility on site 6, centrally located in the downtown and integrated with Jackson Square and the Civic Centre, would be almost desirable and advantageous project. It would both add to the external aesthetics of the downtown complex and to the functional environment and mix of amenities available to the public. Similar examples in other cities have proven to add great vitality to downtown areas, e.g. the Atlanta Omni International Complex and the Hartford Civic Centre Complex, both including multi-use arenas having seating capacities in the order of 16,000 to 21,000 people.

In a comparison of a new stadium and a renovated Ivor Wynne Stadium from a design point of view, a new stadium would be clearly more preferable for a number of reasons:

- while an expanded Ivor Wynne Stadium will accommodate over 42,000 people, fewer of these seats are strictly between the goal lines, and because the playing field is at street level, spectators must access all seats from grade as opposed to a new stadium design in which seats are accessed from grade at the mid point in the stands by depressing the playing field below grade.
- a new stadium could ideally be oriented in the northsouth direction as opposed to Ivor Wynne's orientation in the east-west direction.
- a renovated Ivor Wynne stadium will not have the flexibility of use associated with a new stadium, including the option for accommodating major league baseball and international track events.
- Ivor Wynne suffers from a lack of parking and adequate street access capacity, whereas a new stadium would be able to provide a greater parking supply within walking distance of the stadium and service by major arterial streets as well as transit, including use of the planned rapid transit line.



- while the visual impact of increasing the height of Ivor Wynne Stadium would be modified somewhat by its location in the centre of the block, this impact will still be significant visually from the surrounding neighbourhood.

While the new stadium would be preferable to expanding and refurbishing the Ivor Wynne Stadium, the latter approach remains a viable option. A decision by the City between the two options will require consideration of tradeoffs between quality and cost, in the context of existing and anticipated future conditions.



5. FINANCIAL/OPERATIONS ANALYSES

In order to develop operational prototypes for either an arena or a stadium, with a view of developing financial pro forma projections within a probable operating structure, a two-phase approach was undertaken. The Phase 1 comparison of stadiums and arenas selected facilities exhibiting as wide a range of examples as possible for the examination of size, development cost, ownership and operational procedures, and capital cost financing. The Phase 2 analysis further develops the study of the operating structures of comparable facilities undertaken in Phase 1. The Phase 1 comparison of stadiums and arenas suggested a variety of options for developing procedures, owner/operator arrangements, and financing alternatives. In Phase 2, these options have been narrowed to provide the relevant parameters for operating costs and procedures for the types of facilities under investigation.

1. Operating Structures of Comparable Facilities

Following an evaluation of forty-seven facilities in terms of their relevance to the Hamilton Study, and taking due consideration of market comparables and facility requirements, a short list for site examinations and interviews with owner/operators was derived comprising five stadiums and five arenas:

Lansdowne Park, Ottawa; Rich Stadium, Buffalo; Schaffer Stadium, in Foxborough,
Mass.; the Silver Dome, Pontiac, Michigan; Taylorfield, Regina; Edmonton Coliseum,
Edmonton; the Hartford Civic Centre Arena, Hartford, Connecticut; the Joe Louis
Arena, Detroit; the Ottawa Civic Centre Arena, Ottawa; and the Pacific Coliseum,
Vancouver.

From the above comparisons, the general conclusion was that there was a wide range of public and private participation in facility operations and that no stadium generated enough revenue to cover its carrying costs related



to the full capital cost, thereby demonstrating the importance of financing from government or private sector sources. Despite the variations in operational procedures, all ownership with the exception of Schaffer Stadium was either Municipal or County. The usage of Canadian facilities was in general, multipurpose, while stadiums such as Rich and Schaffer depended almost entirely on Football revenues. For capital cost financing, Government Grants were captured when possible, but funding was primarily in the form of Municipal Bonds and Debentures.

Similarly, arenas reflected a wide scope of operational arrangements; operated at a loss after full debt service expense; and were, without exception, owned by a municipal body or a governmentally established organization. In all cases, arena facilities offered a wide range of event activities and were often operated in conjunction with a convention/trade exhibition centre complex. Financing, again, was determined primarily by debentures and bond issues and, where possible, government funding programs.

2. Financial Projections of Facility Operations

Following the Phase 1 comparison, Phase 2 narrowed the possible operational options in order to provide the relevant parameters for financial projection.

Accordingly, four major facility scenarios were identified for the financial feasibility and analysis, as follows:

- 1. A new 15,000 seat arena
- 2. A new arena/trade centre sharing staff and a united operation with the Hamilton Convention Centre.
- 3. An 8,500 seat expansion for the Ivor Wynne Stadium.
- 4. A new 40,000 seat football stadium.

EXHIBIT 13

STADIUM/ARENA FEASIBILITY STUDY

ARENA/TRADE CENTRE OPERATING PROFIT/LOSS

CITY OWNED AND OPERATED

	HIGH		MEDIU	M	LOW	
	outside concession	inside concession	outside concession	inside concession	outside concession	inside concession
Expenses	925,000	1,017,000	925,000	1,017,000	925,000	1,017,000
Revenues	2,220,000	2,419,000	1,968,000	2,190,000	1,660,000	1,842,000
Profit/(Loss)	1,295,000	1,402,000	1,043,000	1,173,000	735,000	825,000

CITY OWNED AND PRIVATE OPERATION*

	HIGH		MEDIU	М	LOW	
	outside concession	inside concession	outside concession	inside concession	outside concession	inside concession
Expenses	2,644,000	2,736,000	2,644,000	2,735,000	2,644,000	2,736,000
Revenues	2,220,000	2,419,000	1,968,000	2,190,000	1,660,000	1,842,000
Profit/(Loss)	(424,000)	(317,000)	(676,000)	(546,000)	(984,000)	(894,000)

^{*} Reflects revenues to the operator; City revenue is assumed to be derived solely through property and business taxes.

Arena/Trade Centre: Operation Separate from Convention Centre

From the analysis of comparable facilities, interviews with promoters and the survey of the public, a range of potential utilization for an arena was derived as described in Section 2 of this study. The utilization forecasts were applied in order to estimate probable revenue ranges which were applied against expenses, derived through an analysis of comparable facilities. Exhibit 13 summarizes the potential profit/loss position of such a facility under the various utilization scenarios and under two operational possibilies: firstly, a city-owned and operated arena; and secondly, a city-owned facility operated privately. In addition, sensitivity regarding the operation of concessions is analysed.

As shown in Exhibit 13, the city owned and operated scenario generates a profit ranging from \$.75 million to \$1.4 million. This compares with a city-owned and private-operated facility, which generates losses ranging from over \$300,000 to almost \$1 million. The primary factors causing the loss position for a privately operated facility are the tax levies related to realty and business, which are in the order of \$1,700,000 per year. According to the Treasury Department of the Corporation of the City of Hamilton, legislation exists at this time which prohibits the City from exempting a private operation from realty and business taxes. Accordingly, the financial projection clearly demonstrates that the most practical operational mode for this facility is the city owned and operated scenario.

Arena/Trade Centre: Joint Operation with Convention Centre

Review of the demand estimates for trade centre activity in conjunction with results from the analysis of comparables indicates that, functionally and operationally, arenas and exhibition centres are highly compatible facilities (i.e. Lansdowne Park, Ottawa; Hartford Civic Centre,

EXHIBIT 14

STADIUM/ARENA FEASIBILITY STUDY

SUMMARY OF ARENA/TRADE AND CONVENTION CENTRE JOINT OPERATION*

REVENUE WITH OUTSIDE CONCESSION OPERATION

REVENUE

Rental Concessions

\$162,000 97,000

\$259,000

EXPENSES

Labour

5,000

NET INCOME

\$254,000

REVENUE WITH INSIDE CONCESSION OPERATION

REVENUE

Rental

Concessions

\$162,000 162,000

\$324,000

EXPENSES

Labour

5,000

NET INCOME

\$319,000

STAFF EXPENSE SAVING: \$143,000

PROFIT (LOSS) SUMMARY

	HI		MED	IUM	LO	W
	Outside Concession	Inside Concession	Outside Concession	Inside Concession	Outside Concession	Inside Concession
CITY OWNED AND OPERATED	1,692,000	1,864,000	1,440,000	1,635,000	1,132,000	1,287,000
CITY OWNED AND PRIVATE OPERATION	(27,000)	145,000	(279,000)	(84,000)	(587,000)	(432,000)

^{*} IBI Estimates

Hartford, Connecticut). Accordingly, in consideration of this finding, this scenario has been analysed. The results indicate that joint staffing of the Hamilton Trade Centre/Arena and the Convention Centre will produce a staffing expense saving in the order of \$143,000 annually. In addition, net added revenue could amount to some \$319,000 per year at the onset of this operation.

Exhibit 14, entitled Summary of Arena/Trade and Convention Centre

Joint Operation, examines the financial performance of such an operational
integration. The resulting calculation indicates most likely profit of over

\$ 1,600,000 if this facility were city-owned and operated, including
concessions operation. Advantages associated with this integration include
higher utilization of the kitchen facilities of the Convention Centre;
centralized managerial functions, thereby providing integrated marketing programs;
and expansion of the market to national and international sized conventions,
trade shows and exhibitions.

It is important to note that the profit position, shown in Exhibit 14, under the combined operation scenario has been derived through a cursary demand analysis for trade centre and national exhibition use which, in all likelihood understates the probable utilization and therefore, income potential.

Financial Implications--Expanded Ivor Wynne Stadium

Following the phase I analysis, where the conclusions indicated that the most appropriate financial and operational condition would be to expand the existing Ivor Wynne Stadium, in this phase, the financial implications of such an expansion are examined.

EXHIBIT 15 STADIUM/ARENA FEASIBILITY STUDY

EXPANDED IVOR WYNNE OPERATING PROFIT/LOSS*

	HIGH	MEDIUM	LOW	EXISTING
Expenses	454,000	454,000	454,000	454,000
Revenues	687,000	598,000	511,000	424,000
PROFIT/(LOSS)	233,000	144,000	57,000	(10,000)

GREY CUP GAME

REVENUES	\$120,000
EXPENSES	15,000
PROFIT	\$105,000

* IBI Estimates

As shown in Exhibit 15, where an operational analysis of the expanded stadium is presented under the medium revenue scenario, a financial forecast indicates a net revenue to the Municipality of some \$144,000 annually. In addition, the expanded Ivor Wynne scenario permits the possibility of a Grey Cup Game being held in Hamilton. This would generate an additional revenue, after expenses of some \$105,000 in these years.

New Stadium--Financial Implications

In consideration of the Land Use context and zoning restrictions, the financial implications of a scenario examining a newly built stadium in the Rushdale Community has been examined. The resulting operating revenue calculations, shown in Exhibit 16, indicate a range of revenue from \$650,000 to \$823,000 annually. These revenues have been based on an identical operational condition to that presently at the Ivor Wynne Stadium. The most likely revenue of \$737,000 corresponds to an average attendance of 35,000 spectators. The stadium would have an operating profit of \$69,000 to \$222,000 against which must be set the loss in revenue to Ivor Wynne Stadium. The net position would be an operating loss of between \$139,000 and \$342,000 per annum, taking account of both facilities.

Conclusions

The financial analysis of the above operating scenarios leads to the following conclusions:

Arena/Trade Centre

1. The most viable operation is a facility designed to be a multipurpose operation, allowing conversion for trade and exhibition uses, physically connected to the Hamilton Convention Centre.



EXHIBIT 16

STADIUM/ARENA FEASIBILITY STUDY

STADIUM OPERATING PROFIT/LOSS*

	HIGH	MEDIUM	LOW
Expenses	581,000	581,000	581,000
Revenues	823,000	737,000	650,000
PROFIT/(LOSS)	222,000	156,000	69,000

GREY CUP GAME

REVENUES	\$ 120,000
EXPENSES	15,000
PROFIT	\$ 105,000

^{*} IBI Estimates

EXHIBIT 17

COST IMPLICATIONS
(\$ Millions Current)

		NEW TRADE	NEW ARENA/ TRADE CENTRE			REFU IVOR WY	REFURBISHING IVOR WYNNE STADIUM	IUM	~	NEW STADIUM IN RUSHDALE NEIGHBOURHOOD	NEW STADIUM IN IDALE NEIGHBOUR	H00D	
		FU	FUNDING			F	FUNDING			FU	FUNDING		1
	%0	25%	20%	75%	%0	25%	20%	75%	%0	25%	20%	75%	
Cost to Municipality	48.4	36.3	24.2	12.1	26.0	19.5	13.0	6.5	41.3	31.0	20.7	10.3	
Carrying Cost 12% for 20 years 12% for 25 years	6.5	4.9	3.2	1.6	3.5	2.6	1.7	0.9	ກຳນ	4.2	2.8	1.4	
Annualized Transportation Costs					Ε.	.1	7:	.1	.1	.	•		of a trade of the same of the
Projected Revenue (Medium)	2.4	2.4	2.4	.2	.2	.2	.2	.2	(+.)	(.4)	(.4)	(.4)	
Surplus/ (Shortfall)	(4.1)	(2.5)	(0.8)	0.8	(3.4)	(2.5)	(1.6)	(0.8)	(6.0)	(4.7)	(3.3)	(1.9)	
Annual Cost to Taxpayer per \$5,000 Assessment (\$) 20 year financing 25 year financing	22.47 20.82	13.70	4.38	(4.38)	18.63 17.54	13.70	8.77	4.38	32.88* 31.78*	25.76* 24.66 *	18.08* 16.99 *	10.41*	
Changes to Annual Cost to Taxpayers (\$)													
Projected profit range High Low			+2.74			±.55				+.55			
25 year financing at 10% 14%	±4.70	±3.52	±2.35	±1.17	±2.52	11.78	±1.26	±.52	±4.11	±3.07	12.05	±1.02	
- Cort wodges to 640 4	- LL : - V		-										-

• Cost reduced to \$40.4 million due to revised land price.
* Due to revised land price cost to taxpayer reduced by 61-64 cents.

- 2. The most practical form of management is a City-owned and operated facility, inclusive of the concession operations. This will create the following opportunities: eligibility for Federal Funding for trade centres providing matching Provincial funding is available; improved marketability for national and international sized exhibitions and trade shows through the expanded floor area within the arena/trade centre; savings in operational expenses; added utilization for the existing convention centre; generation of demand for more hotel accommodation in the City of Hamilton.
- 3. The arena/trade centre facility is estimated to offset over \$1,600,000 of the capital debt charges per year.

Stadium

- 1. An expanded Ivor Wynne stadium, offering the majority of seats between the goal lines will meet requirements for retaining the Tiger Cats in Hamilton and afford the opportunity of hosting the Grey Cup Games. Such a facility should make a small operating profit. The best estimate of the operating profit (exclusive of debt charges) to the City of Hamilton is \$144,000 which could be augmented by some \$105,000 when a Grey Cup Game is being hosted.
- 2. The development of a new stadium could produce a net operating profit of \$156,000 (best estimate). However, in combination with Ivor Wynne Stadium, there would be a net operating loss of \$255,000, exclusive of debt charges for the City of Hamilton.
- 3. Expansion or new development of a stadium is crucial to the continued operation of the Tiger Cat Team in the City of Hamilton.

Impacts on Municipal Taxes

An analysis has been made of the cost implications of a new arena/trade centre, refurbishing Ivor Wynne Stadium, and a new stadium. This is illustrated on Exhibit 17, opposite.

Costs have been escalated to the dates at which it is expected tenders will be called (allowing also for cost escalation during the construction period). The relevant dates are January 1982 for Ivor Wynne Stadium by which time costs are estimated to have increased by 18%, and July 1982 for the new arena/trade centre, and new stadium by which time costs are estimated to have



increased by 24%. Operating profits (deficits) have been escalated to the year of opening of each facility, at 10% per annum, which is 2% less than the basic interest rate used in the analysis, which is 12% per annum. Capital costs have been connected to annual expenditures over 20 and 25 year periods using the basic 12% interest rate. Calculations have been made showing the effects of capital grants and other capital contributions at rates of 25%, 50% and 75%. To these annualized costs have been added annualized transportation costs, including transit operating subsidy and the cost of road construction, also at 12% interest.

Estimated annual profits and losses have been applied to the annual cost so calculated, to estimate a shortfall or surplus in revenues. Note that in the case of the new stadium a loss situation is forecast because of the loss of revenues to Ivor Wynne when the Tiger Cats move to the new facility.

The shortfall or surplus in revenues is then translated to an impact on a residential taxpayer with an assessment of \$5,000, using data supplied by the City Treasurer.

The results show that with 50% funding (i.e. approximately the level that might be obtained from the Federal and Provincial Governments) the combination of the arena/trade centre and a completely refurbished Ivor Wynne Stadium would cost the taxpayer about \$1,00 per month. Should funding only be available for the arena/trade centre, the centre plus an expanded but otherwise unimproved Ivor Wynne Stadium would cost about the same. With 50% funding the cost of an arena/trade centre and the new stadium would be about \$1.75 per month. If funding were only available for the arena/trade centre, this would rise to almost \$3.00 per month.



Sensitivity analyses have also been conducted with respect to the ranges in profit forecast, and for interest rates of 10% and 14%. These show that with a favourable combination of high usage and a 10% interest rate the arena/trade centre could show a profit even at 50% funding. With an adverse combination of low usage and a 14% interest rate, it would still show an appreciable profit at 75% funding.

For the stadium the picture is less favourable. For the fully refurbished Ivor Wynne, with 50% funding, cost to the taxpayer might range from a little over 50 cents per month to almost 90 cents per month, depending on usage and interest rates. For the new stadium the equivalent figures would be \$1.20 to \$1.70 per month.

It should be noted that these figures refer to residential taxpayers.

Non-residential taxpayers should add approximately 18% to these figures.

Conclusions

The analysis of financial implications illustrates the importance of obtaining funding to reduce the initial capital outlay. Possible sources of funding are dealt with in the next section. It also illustrates the importance of keeping profits as high as possible by reducing expenses by such mechanisms as joint operation of the arena/trade centre and convention centre; and by keeping revenues up. The importance of securing an HNL team for Hamilton to the economics of the trade centre; and of having a successful football team to the economic of the stadium is demonstrated.



Funding Sources

A considerable number of possible sources of funding have been investigated, and from these two which appear to have the greatest potential have been identified. The Provincial Government, through the Winterio Capital Grants Program, is currently reviewing priorities with a view to formulating a new capital funding program. While this program is geared primarily towards the rehabilitation and expansion of existing cultural and recreational facilities, assistance for new construction is also possible. A series of criteria have been established by which priorities will be assessed; and it will thus be important to ensure that the final proposal responds to as many of these criteria as possible. The proposed new program would be limited to funding up to one third of capital construction costs.

Providing the arena is combined with a trade centre, the possibility also exists for attracting a 25% capital grant for capital costs including land from the Federal Government through the Department of Industry, Trade and Commerce, providing the Provincial Government are prepared to contribute a matching sum. Should the Provincial Government contribute less, the Federal Government contribution would decrease accordingly. Since there can be little doubt that the trade centre would best be located in the downtown area in close proximity to the convention centre, this potential availability of financial support militates strongly in favour of a dual purpose structure in a central location.

A further possibility exists, which is dependent on the City's ability to secure the privilege of hosting a major sporting event such as the Pan American Games. Under such circumstances the Federal Department

EXHIBIT 18

FEDERAL CONTRIBUTION FOR CAPITAL CONSTRUCTION OF SPORT FACILITIES

City	Major Event	Year	Federal Share
Winnipeg	Pan-American Games	1967	\$2.2 million
Halifax	Canada Summer Games	1969	\$110,000
Saskatoon	Canada Winter Games	1971	\$200,000
Barnaby/ Westminster	Canada Summer Games	1973	\$520,000
Lethbridge	Canada Winter Games	1975	\$580,000
St. John's	Canada Summer Games	1977	\$1.0 million
Edmonton	Commonwealth_Games	1978	\$10.1 million
Brandon	Canada Winter Games	1979	\$1.15 million
Thunder Bay	Canada Summer Games	1981	\$1.5 million

NOTES: 1. Federal share - 1/3 of capital costs, Province - 1/3 and City & Organizing Committee (Influential Citizens) - 1/3.

of Fitness and Amateur Sport will provide funding of one third of the capital cost of facilities, with the Provincial Government also providing a one third grant. Exhibit 18, opposite, lists Federal contributions of this type made since 1967. As will be seen, with the exception of the 1978 grant to Edmonton related to the Commonwealth Games, the sums involved are comparatively small relative to the facilities costs estimated in Hamilton. The next opportunity for Hamilton to obtain a major event would appear to be the Pan American games in 1987, for although it would not be Canada's turn, the allocation is not always made in accordance with precedent.

While not representing a direct financial contribution, the President of Maple Leaf Gardens Limited, who is also the owner of the Hamilton Tiger Cats, has given an undertaking that he will render all possible assistance to obtain an NHL franchise for Hamilton, probably through transfer of an existing club. In addition, if a suitable expansion of Ivor Wynne Stadium or construction of a new stadium is undertaken in the near future, he has given a further undertaking that Toronto will not claim the territorial compensation to which the club would be entitled under the NHL constitution when a new franchise is established within 50 miles. This would represent a considerable saving to any NHL member club potentially considering a move to Hamilton, it would materially increase the likelihood of such a move being implemented in the near future and would substantially strengthen the financial viability of the arena/trade exhibition centre.



Other possibilities for private sector support have been identified; but the sensitivity of such negotiations precludes reference being made to these prior to agreement being reached. In addition, the extent of public support for stadium and arena development suggests that the potential for public fund-raising activities is good.

SUMMARY OF TOTAL ECONOMIC IMPACT (DIRECT, INDIRECT AND INDUCED EFFECTS) GENERATED

	Estimated New Realty and Business Taxes (\$ 1980)	3,000 - 6,500	1,500 - 3,500	40,000 - 87,000
ENDITURES	Estimated Ne Realty and Business Tay (\$ 1980)	3,000	1,500	40,000
TRE RELATED EXPE	Income to Construction Industry and Labour (\$M 1980)	67.1	45.5	80.3
BY CONSTRUCTION AND OTHER STADIUM AND ARENA/TRADE CENTRE RELATED EXPENDITURES	Construction Jobs	435 for 28 months	455 for 18 months	650 for 22 months
HER STADIUM AN	Annual Income to Business and Labour (\$M 1980)	3.0	1.9	25.2
FRUCTION AND OT	New Permanent Jobs	125	80	615
BY CONST		New Stadium	Expanded and Refurbished Ivor Wynne Stadium	New Arena/Trade Centre

6. ECONOMIC AND OTHER IMPACTS

Economic impacts have been identified and evaluated in terms of jobs created; income generated to the community; benefits to service industries; and income generated to the City of Hamilton. The direct effects of both the construction and the operation of the new facility have been estimated. In addition, the spin-off effects, otherwise known as the indirect and induced effects, have also been estimated through the application of appropriate income and employment multipliers.

A number of social factors have also been examined. Implications of private or public ownership and management have been reviewed. Public acceptability has been determined through a survey of public attitudes. Estimates have also been made of regional impacts; the impact on amateur sports; and the impact on the recreational opportunities.

Economic Impact

The principal economic impacts are summarized on Exhibit 19 opposite. As will be seen from Exhibit 19 a new stadium will create approximately 125 permanent new jobs, and generate approximately \$3 million per annum in income. Of this \$3 million, approximately \$1.9 million would be in wages and salaries, while the other \$1.1 million would be income to service industries. Construction of the new stadium would provide an average of 435 jobs over a period of 28 months, and generate approximately \$67 million in income. Realty and business taxes have been estimated on the assumption that the new business generated would be accommodated in new space. Estimated taxes range from \$3,000 to \$6,500 per annum, depending on location and nature of facilities



actually constructed. However, in the case of the new stadium which would be in a suburban location, it is likely that the taxes actually realized would be nearer the lower figure.

The expanded and refurbished Ivor Wynne Stadium would generate approximately 88 new permanent jobs, and generate new income to business and labour of approximately \$1.9 million per annum. Of this figure, approximately \$1.2 million would be paid in wages and salaries, and the remainder would be benefits to service industries. Construction of the expanded and refurbished facility would generate an average of 455 jobs for a period of 18 months. Income to the construction industry of approximately \$45 million is also estimated. Increases in business and realty taxes would range from \$1,500 to \$3,500. It is thought that for Ivor Wynne Stadium, the actual figure would lie in approximately the middle of that range.

The new arena/trade centre would generate approximately 615 new permanent jobs. Annual income to business and labour is estimated at approximately \$25 million per annum of which over \$15 million would be paid in wages and salaries. The balance essentially represents benefits to service industry. Construction of this major project would result in an average of 650 construction jobs over a period of 22 months, and an income to the construction industry of approximately \$80 million. Estimated new taxes lie in the range of \$40,000 to \$87,000 per annum. In the case of the new arena/trade centre, which would be located in downtown Hamilton, it is anticipated that taxes realized would be close to the higher figure.

From this summary it will be seen that considerable economic



benefits accrue from the implementation of all of these projects. For both the new stadium and the expanded and refurbished Ivor Wynne Stadium, the economic effects are smaller since a higher proportion of community use is envisaged. To the extent that additional commercial uses of the new stadium materialize, the economic benefits would be increased. The same opportunity does not exist with Ivor Wynne Stadium, since there is a heavy demand for community use and local residents have objected in the past to increased use for commercial purposes. In the case of the new arena/trade centre a higher proportion of commercial use is envisaged and some of the community uses such as exhibitions produce significant revenues and provide substantial amounts of employment. The fact that the facility would be located in the downtown area also means that the revenue from realty and business taxes is proportionately higher.



OWNERSHIP AND MANAGEMENT

The financial analyses have demonstrated that while capable of meeting their own operating costs, all of the facilities would run an operating deficit if called upon to pay municipal taxes at the normal rates. Similar facilities in other cities display the same characteristics; and as a result they are almost invariably owned by municipal governments; but through a variety of mechanisms.

In the case of the Ivor Wynne Stadium, this is already Cityowned and operated, and during the spring, summer and early fall attracts
heavy community use both on weekends and during the week. This amounts
to approximately 45 days in total over a period of about 9 months, of
which approximately half is concentrated in the months of September, October
and November, i.e. the football season. There would thus appear to be
no reason for changing the existing management structure. Should a new
stadium be built it is likely that community use would increase, since
amateur sporting organizations have requested additional time be allocated
for their use. Thus although the new stadium/Ivor Wynne combination would
result in an operating loss even with increased attendance at football games,
owning to Ivor Wynne losing the Tiger Cats revenue, the taxpayers of the
City would be gaining increased access to the facility in return for the
added tax burden.

With respect to the new stadium, should this be constructed, it would clearly be necessary for the City to own the facility. Again the utilization for football would leave the majority of the time open for community use, in an area of growing population planned to develop



significantly in the future. In the financial analyses a management structure similar to that pertaining at Ivor Wynne now is envisaged, with the football team essentially paying rent and a share of concession revenue to the City but otherwise managing and organizing the football activity in its entirety. There appears to be no reason, why this should not continue in future, although in both the expanded Ivor Wynne and the new stadium there would be a need to negotiate specific arrangements relative to the Grey Cup game should this be held in Hamilton.

For the arena/trade centre a far greater variety and proportion of commercial events is envisaged. However, the potential exists for community uses although these would not include ice time, since this is not compatible with the operation of an NHL team as the ice surface deteriorates too rapidly under community use. While the economics of operation would require that community uses take up those periods when the facility was not rented commercially, as in Ottawa, nevertheless a substantial community benefit would accrue. It should also be recognized that trade shows and exhibitions, which although not directly commercially viable generate considerable benefits to the community, are also community uses, notwithstanding the fact that a modest rental return is paid by the organizers.

For the arena/trade centre we favour the type of management structure adopted by Hartford, Connecticut, which by virtue of its size, location and nature is probably the most comparable with Hamilton. This in fact closely parallels the management structure already in place for the Hamilton Convention Centre. Since it has been demonstrated that significant economies accrue from integrating the management and operations



of the convention centre and the arena/trade centre we therefore consider that the responsibilities of the existing management of the convention centre should be supplemented, and the staff expanded, to manage both operations, including concessions.

It is thus envisaged that the City will play a major role in the operation of both stadium and arena/trade centre facilities. This is necessary in light of the inability of the City to exempt, wholly or in part, a private operator from the municipal tax burden. It is also appropriate since it is likely that the facilities will be built largely through government funding and possibly public subscription, will not be able to pay fully for debt servicing, and will involve significant elements of community use.

PUBLIC ACCEPTABILITY

Public Opinion Poll

In order to assess public attitudes towards the concept of a new or improved Stadium Facility and a new Arena Facility for the City of Hamilton, 400 telephone interviews were conducted with residents of Metro Hamilton in July 1980. All of those interviewed were aged 18 and over, and were distributed throughout the City and the other communities which comprise the Metropolitan region approximately in proportion with their population. The sample was designed to be 50% male and 50% female.

The questionnaire asked first about the respondent's awareness of the concept and then passed to open ended questions which asked the respondent to identify the advantages and disadvantages of proceeding. No restriction was placed on the number of advantages and disadvantages that were identified.

STADIUI'/AREIIA FEASIBILITY STUDY

EXHIBIT 20: PUBLIC ATTITUDES

SUMMARY

ADVANTAGES	% OF RESPONDENTS	DISADVANTAGES	% OF RESPONDENTS
Attract Professional Sport, especially hockey shows and events	34%	Cost to Taxpayer/City	34%
Hamilton should have because of size,	28%	congestion especially parking and especially downtown	%8
Good for people especially children	6V.	Conditional Concerns	%6
Great Idea	12%	Need other facilities first	34%
Other Comments	26%	Other Comments	10%
TOTAL NUMBER OF ADVANTAGES IDENTIFIED	456*	TOTAL NUMBER OF DISADVANTAGES IDENTIFIED	256
Respondents identifying 1 or more advantages	81%	Respondents identifying 1 or more disadvantages	\$25%
Don't Know	%9	Don't Know	%9
No advantages	13%	No Disadvantages	39%.
*Some respondents identified more than one advantage or disadvantage	re than one advantage or	disadvantage	

Sample of 400, accurate to within plus or minus 5% at 95% confidence level.

Awareness of the Concept:

Four in five residents say that they are aware that the City of Hamilton is presently considering the concept of a new or improved Stadium Facility and a new Arena Facility for Hamilton. The level of awareness is remarkably even across various sub-groups identified in the survey. However, those who live in the City of Hamilton proper are slightly more aware of the concept than those who live in other communities. Males and those aged 45 and over also seem more aware than females and those who are younger than 45. Those who consider that they are not sports fans are the least aware, but even in this group, two out of three knew of the concept prior to the survey.

Attitude Towards the Concept:

The results of the survey are summarized in Exhibit 20, opposite As will be seen from the table, advantages identified outweighed disadvantages by almost two to one. Those who perceived no disadvantages outweighed those who see no advantages in a ratio of 3:1.

One third of the respondents saw the potential for attracting professional sport, shows and events to be a significant advantage. An equal number considered that cost to the taxpayer or City would be a disadvantage, and concerns over cost outnumbered all other disadvantages. A very sizable group, 28%, felt that Hamilton should have such facilities because of the size of the City, the fact that they would hope to put the City on the map, and to draw more visitors to the City; 12% of those interviewed considered it would be a "great idea" without being more specific.



Under disadvantages, 9% of those responding had what have been described as "Conditional Concerns". Thus 3% considered that the concept would not be very useful unless people could get there via public transportation, and 2% considered that the facilities would be wasted if people did not use them. Half of the concerns about congestion are in fact conditional also, since they only relate to a downtown location, and would not be relevant were another location to be selected for one or both facilities.

In total, 81% of respondents identified one or more advantages, while only 55% identified one or more drawbacks. The proportion of males perceiving advantages exceeded that of females by 10%. Males considering attraction of professional teams an advantage outnumbered females by three to one. Generally speaking those in older age groups and those at the lower end of the income scale identified more advantages than those who were younger and whose incomes were greater.

Females also identified somewhat fewer disadvantages; but were equally concerned about costs. The numbers perceiving disadvantages did not vary significantly with age, although those in the middle age group (35 to 44) were significantly less concerned about cost than those in either the younger or older age groups. Those with incomes of \$15,000 or less saw fewer disadvantages than those in the higher brackets; but the proportion in the lowest income group who were concerned about costs was almost identical to the proportion of those whose household income exceeds \$25,000. Those in the \$15,000 to \$25,000 income group are the most concerned about costs to the taxpayer.



Public Opinion: Newspaper Poll

In addition to the scientifically structured public opinion poll, widespread public participation and commentary was solicited via newspaper advertisements placed in the Hamilton Spectator during July 4, 5, and 8, 1980. More specifically, the ad read as follows:

STADIUM/ARENA FEASIBILITY STUDY Request for public participation

The corporation of the City of Hamilton has retained the services of the IBI Group to determine the feasibility of providing a new or improved stadium facility and a new arena facility.

All public views and considerations are requested regarding the desirability and nature of such facility or facilities. Additionally, any information on potentially suitable sites is welcome.

All views and information must be received not later than July 21, 1980 and should be addressed to:

IBI Group, Stadium/Arena Feasibility Study, Box 560, THE SPECTATOR, Hamilton, Ontario.

Responses to date have not been abundant as expected, with a total of 30 having been received. However, these are all voluntary responses; direct contact to solicit responses was not undertaken.

Tabulation of the responses indicates that 8 of the 30, or 27%, vehemently disapprove of the concept on the basis of public expenditure



priorities. More specifically, those respondents who express disapproval suggested that public dollars be directed to:

- improving or building new hospital facilities
- provision of more senior citizen facilities and beds
- stimulation of the Hamilton economy to increase jobs
- creation of incentives to reverse the pattern of population outflow

Positive responses, comprising 73% of the total responses strongly support the development of a new arena and redevelopment or new development of a football stadium. By way of summary, the following points were made in support of this programme:

- a city the size of Hamilton is clearly underserved by major arena facilities
- the Tiger Cats and Ivor Wynne Stadium play an important role in the social structure in the City of Hamilton and should be supported
- if the new stadium were to be built the ideal location would be on the mountain
- the additional cost to the taxpayer will be a burden but will be offset by the social and economic benefits which will accrue to the City of Hamilton as a direct result of the existence of these facilities
- there is a dire need for a major ice facility to provide additional time for junior and amateur hockey
- the City of Hamilton should support a national hockey league team

It is important to note that, although some response was derived through the solicitation, relative to the statistically valid public opinion poll—the response to the newspaper should not be treated as a response which represents the general public view. The general commentary clearly supports the findings of the public opinion poll and may therefore be viewed as supporting information.



Conclusions:

There appears to be very considerable public support for the concept of a new or improved Stadium Facility and a new Arena Facility for the City of Hamilton. The ability to attract professional sports teams and shows and events is seen as the greatest advantage. However, civic pride also appears to be an important motivation. Concerns about cost to the taxpayer outweight all other disadvantages. However advantages outweigh disadvantages by approximately two to one, and whereas only 55% of the respondents were able to identify a disadvantage, some of which were conditional, 81% of the respondents identified advantages.

REGIONAL IMPACTS

With respect to the broad region which has been identified as the secondary market area, the survey of the public indicated that, were appropriate events to be available in Hamilton, the majority would support these in preference to similar events in other locations such as Toronto and Buffalo. For example, in terms of CFL support, in the secondary market area almost four times as many support the Tiger Cats in Hamilton as compared to the Argonauts in Toronto.

When questioned about their future intentions, approximately 50% of those who would visit any particular event stated they would only attend in Hamilton. The other 50% stated that they might attend in Hamilton or another city. For this 50%, the decision presumably would relate to the quality of event offered, and the timing with respect to the personal plans and individuals concerned. With respect especially to ice hockey and football, it must be noted that intentions to visit other cities reflect, at least in part, the desire to support the home club on away games.



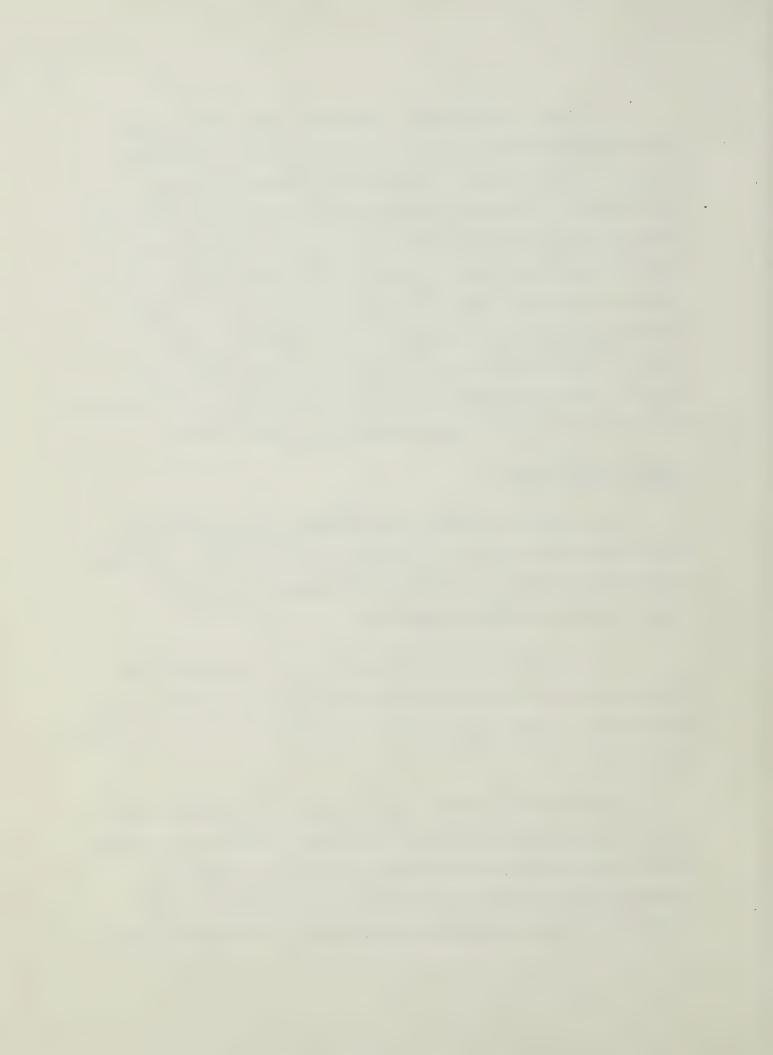
In terms of market support, the survey of the public has shown that the secondary market area could supply up to 40% of the patronage of events other than football, whether held at the arena/trade centre or the stadium. The fact that the market survey indicated that such events, with the exception of professional wrestling, would be very much over subscribed demonstrates that the new facilities in Hamilton would be fulfilling a marked regional need. There is no doubt that the facilities proposed would make a marked contribution to the City's function as a regional supplier of high order services. This would be extremely supportive of the City's role as the western anchor to the major corridor of urban development that extends from Hamilton through Metropolitan Toronto to Oshawa.

IMPACT ON AMATEUR SPORT

With respect to amateur sport, the expansion of the Ivor Wynne Stadium essentially results in a continuation of the status quo. It provides expanded and improved seating, but would not increase the availability of major stadium facilities to amateur sport.

On the other hand, the development of a new stadium would both free-up additional time at Ivor Wynne Stadium for the use of amateur sporting organizations, and would provide a major new facility in a growing residential area.

While in terms of overall usage the City of Hamilton would seem to be well supplied with facilities at the present time, there is a shortage of major facilities of the highest quality equipment and accommodation, including lighting. Thus, it has been noted that the availability of an Astro-turf surface in Ivor Wynne Stadium enables the area soccer league



to utilize the facility early in March. Further, it has been noted that at Ivor Wynne Stadium numerous requests to hold special events could not be accommodated due to previous commitments. It has also been noted that utilization of one park would be greatly increased if lighting were available.

It would therefore appear that the construction of a new stadium would provide significantly greater opportunities for amateur sport, and that there is a growing demand from the amateur sporting community which makes facilities that can operate successfully in the spring, fall, and in the evenings especially valuable.

The arena/trade centre would provide some opportunity for indoor sporting events, excluding amateur hockey, which causes too rapid deterioration of an ice surface to be used for NHL play. In addition, in that additional opportunities would be provided to observe a range of professional sports such as indoor tennis, indoor soccer, and lacross, interest of amateur sportmen in these sports would be stimulated and encouraged. There is also no doubt that the presence of an NHL team in Hamilton would provide a still greater stimulus to the young Hamilton hockey players, and also provide the opportunity to observe the nation's best hockey players in action on a regular basis.

Contribution to amateur sport would thus be direct in terms of the use of the facilities, and indirect in terms of the instruction it would provide and increased enthusiasm it would generate. While these impacts are difficult to quantify, there is no doubt that the overall effect of both would be positive.



IMPACT ON RECREATIONAL OPPORTUNITIES

The refurbishing of Ivor Wynne Stadium would undoubtedly raise the quality of the recreational experience of watching the Tiger Cats, and would also make this opportunity available to a greater number of supporters. In that with an improved facility the economics of team operation would be improved, Hamilton could look to supporting a professional football team of higher quality than in the past. Recreational opportunity would thus be improved in terms of quality and the numbers to whom it would be made available.

In that it is not expected that other events such as concerts would be permitted in the stadium (with the exception of one per annum as permitted at the present time) other recreational opportunities would not be affected.

With respect to the new stadium, the same comments hold good as for Ivor Wynne, except that the quality of the seating and the viewing conditions would be even better. It is anticipated that additional new events could be attracted. An additional concert and event have been taken into account in the financial analyses, but should such a facility be constructed, it is likely that others, e.g. an outdoor extravaganza, might be held. The mere existence of a superior facility, which might accommodate baseball and track events as well as football, opens up opportunities that currently do not exist. These are not sufficiently hard for them to have been incorporated in the financial analysis, but the potential must nevertheless be recognized.



The analysis of comparables, and the survey of promoters, both suggest that a wide range of recreational opportunities could be provided in the arena/trade centre facility. These have been identified in the market analysis. Further, the combined arena/trade centre and convention facility would enable bigger exhibitions to be attracted to Hamilton, and enable others to provide a full rather than a reduced exhibit. Thus, both the range and the quality of recreational opportunities will be markedly improved. The need for such opportunities is probably best illustrated by the demand shown by the survey of the public, which indicates wide support for every opportunity be these sporting, exhibitions, or cultural, that was identified.

PUBLIC OPINION

- 4 out of 5 aware of issue 2 to 1 perception of advan-tages vs. disadvantages concern re net cost to
- local taxpayers

MARKET ANALYSIS

- Demand exists to support a new or improved Stadium and a major Arena/Trade

3. FACILITIES/COSTS

- Expand Ivor Wynne Stadium: \$10.4M (1980 S); \$12.3M escalated
- Expand/refurbish Ivor Wynne Stadium: \$22M (1980 \$); \$26.0M escalated
- New Stadium: \$32.5M (1980 \$); \$40.3 M escalated New Arena/Trade Centre: \$39.0M (1980 \$); \$48.3 M escalated

4. POTENTIAL SITES

- Most accessible sites are downtown or on ICTS line Arena/Trade Centre should be downtown for link to Convention Centre Insufficient room for Stadium on downtown sites but suitable suburban sites available Expanded Ivor Wynnne is
- good, most economical solution, but impacts on neignbourhood must be

FINANCIAL CONSIDERATIONS

- Public investment will be required to develop new Stadium and/or Arena
- Likely support for at least half capital cost of new Arena/Trade Centre through Federal/ Provincial grants (must include Trade Centre).
- Similar support for Stadium may be forthcoming, particularly if tied to Hamilton's attracting major national or international sporting event(s)

INTERIM CONCLUSIONS

- Public opinion and market analysis support new Arena and improved or new Stadium provided suitable financing can be arranged.
- Funding and market considerations support combined Arena/Trade Centre facility which must be closely linked to existing Convention Centre in Jackson Square.
 Suggest more detailed study of Arena/Trade Centre on downtown site, improved Ivor Wynne Stadium, and new Stadium on a suburban site.

MARKET ESTIMATES

- Comparables and promoters estimates confirm demands Public survey demonstrates even stronger demand

SITE COMPARISONS

- Ivor Wynne and Mountain sites preferred for Stadium
- Jackson Square site preferred for Arena/ Trade Centre

DESIGN CONCEPTS

- New Stadium better than Ivor Wynne though both good
- Compined Arena/Trade Centre viable and attractive development

FINANCIAL/OPERATIONS ANALYSES

- City should own and
- operate facility - Arena/Trade Centre makes significant contribution
- to debt service Ivor Wynne makes small contribution to debt service
- New Stadium makes small operating loss With 50% funding, Arena plus Ivor Wynne costs
- average taxpayer \$1.00 per month With 50% funding, Arena plus New Stadium costs average taxpayer \$1.75 per month.

11. ECONOMIC AND OTHER IMPACTS

- New Stadium generates 125 permanent jobs, 435 construction jobs, 53.0M new income/year, 567.IM income from construction expenditures, and \$3,000-\$6,500 more business/realty
- S67.IM income from construction expenditures, and \$3,000-\$6,500 more business/realty taxes to City.
 Improved Ever Wynne Generates 30 permanent jobs, 455 construction jobs, \$1.9M new income/year, \$45.5M income from construction expenditures, and \$1,700-\$3,900 more business/realty taxes to City.
 New Arena/Trade Cantre generates 615 permanent jobs, 650 construction jobs, \$25.2M new income/year, \$80.3M income from construction expenditures, and \$40,200-\$87,100 more business/realty taxes to City.
 Other positive impacts on amateur sport, recreational opportunities, neighbourhoods, region, and civic pride/image especially for new Stadium and Arena/Trade Centre.

CONCLUSIONS AND RECOMMENDATIONS 12.

- Public opinion, market analysis, site comparisons, design concepts and financial/ operations/economic analyses support the desirability and feasibility of a new Arena/Trade Centre and a New or Improved Stadium, provided suitable financing can
- Arena/Trade Centre and a New or Improved Stadium, provided suitable financing can be arranged.

 If funding can be arranged, a new Stadium located on the Mountain at Site 2 would be preferrable, but an expanded/refurbished [vor Wynne Stadium would also be suitable.

 Such a new or improved Stadium with 42,000+.seats, is essential to the continued viability of a CFL football team in Hamilton and to the obtaining of an NHL team without a territorial payment to Toronto.

 At least 50% Federal/Provincial funding sems likely for a compined Arena/Trade Centre facility, which should be located at Site 6 adjacent to Jackson Square and the existing Convention Centre.

 An NHL team is central to the financial feasibility of the Arena/Trade Centre

- An NHL team is central to the financial feasibility of the Arena/Trade Centre.

 If the City of Hamilton decides to proceed with the Stadium and Arena/Trade Centre, negotiations should be pressed regarding senior government funding and the obtaining of an NHL team for Hamilton.

 Substantial economic and other benefits would result from the new facilities especially from new Arena/Trade Centre and New Stadium.

Phase



7. CONCLUSIONS AND RECOMMENDATIONS

The preceding sections have summarized our findings in the areas of market estimates, site comparisons, design concepts, financial/operations analyses, and economic and other impacts. In this section, as illustrated in Exhibit 21, we draw these findings together and present our conclusions and recommendations. The following sections follow the organization of Exhibits 1 and 21.

Public Opinion

The poll carried out during July indicates that four out of five residents of the Hamilton Metropolitan Area are aware of the stadium/arena issue. When asked on an open-ended basis regarding perceived advantages and disadvantages, advantages outweighed disadvantages in a ratio of approximately 2:1. Those perceiving no disadvantages outnumbered those perceiving no advantages in a ratio of 3:1. The major advantages identified were:

- . ability to attract major league teams
- . a city the size of Hamilton should have such facilities
- . more facilities available for children's leagues/teams
 - attraction of big shows and concerts
- . attraction of more money/revenue and tourists.

The single major disadvantages, but one which is of concern (32% of responses), is that of cost to the local tax payer. Clearly, therefore, public attitude towards a new facility will depend, among other things, on securing reasonable levels of funding from sources other than the City, and on the negotiation of financial arrangements favourable to the City.

Market Analysis

We conclude that there is sufficient existing and latent demand



in the Hamilton Area to support both an improved or new stadium and a major new arena/trade centre. An improved or new stadium with better seating at the sidelines and at least 40,000 seats, appears to be necessary if a CFL football team is to be viable, for the long term, in Hamilton. In addition, it will also be necessary if Grey Cup Games and other major outdoor sporting events, such as World League Soccer, Pan American Games, Commonwealth Games, etc., are to be accommodated. Similarly, there is substantial demand to support a major facility which could accommodate an NHL hockey team as well as other indoor sports and trade centre activities, and events such as circuses, major exhibitions, major trade shows, etc. Discussions with users and promoters suggest that an improved stadium and a new arena/trade centre in the Hamilton Area would be utilized at levels comparable to similar facilities in other North American cities of similar size to Hamilton. The survey of the public indicated even greater market strength, with almost 40% of the support coming from a secondary market area which extends from Welland through Kitchener-Waterloo to Oakville.

Facilities/Costs

Improving the Ivor Wynne Stadium to a capacity of 42,500 seats by adding some 8,500 new seats in a preferred sideline location, would meet the requirements of major league outdoor sports events, at a capital cost in the order of \$10 - \$22 million, depending on the level of refurbishing carried out with the expansion. Building a new stadium of major league proportions (42,500 seats) would cost in the order of \$32 million, excluding land costs. The capital cost of a new arena/trade centre (15,000 seats, 60,000 gross square feet exhibition space) would be in the order of \$39 million, excluding land. Some economies of scale could be possible in a combined stadium/arena facility, but as this does not



emerge from the total analysis as a feasible direction, estimates of the saving were not developed. The above costs are as of September, 1980 and will require escalation to account for inflation. Escalated cost estimates are shown in Exhibit 20 assuming the new facilities were constructed by summer/fall 1984 and/or an expanded Ivor Wynne Stadium by summer, 1983.

Potential Sites

A number of sites were identified as possibly suitable for a trade centre/arena in the downtown area, in terms of support from and to complementary uses, including the new convention centre, impacts on adjacent land uses and the availability of services. Among the sites currently identified in the downtown area, none is large enough (9 acres) to support a stadium or a combined stadium/arena. Feasible road, transit and parking arrangements could be made for a new arena/trade centre at each of the potential downtown sites.

The economic spin-off from a new trade centre/arena would be greater if this facility were located in the downtown area than if it were located elsewhere, since this would encourage greater use of Hamilton hotels, restaurants and other tourism/recreational/trade facilities.

The most accessible sites are also in downtown locations, offering high accessibility by both road and transit, as well as substantial existing parking. Transit accessibility to downtown sites would be significantly increased by the construction of the proposed Intermediate Capacity Transit System (ICTS) which could be expected to double the "modal split" (percentage arriving by transit). For an arena/trade centre this would mean in increase of from about 20% to about 40%, thereby substantially reducing parking requirements.



Suitable access and parking arrangements can be made for an expanded Ivor Wynne Stadium but the impact on adjacent residents would have to be taken into account and mitigated to the extent possible. A number of suburban sites have been identified which could be suitable for a new stadium. Of these a site on the mountain, on or near the proposed ICTS line, would achieve the advantages noted in the previous paragraphs, notably greater use of transit, less on-site parking and greater ability to use parking facilities downtown and at other ICTS stations. This would also help to provide access during a period when the Mountain Arterial roadway might not be available to help serve such a site. While there are suitable sites adjacent to the mountain arterial and Red Hill Creek corridor their suitability requires the construction of the roadways in these corridors, which means that they would not be available in a fully accessible form for an estimated five to ten year period.

Financial Considerations

Public investment will be required to develop a new stadium and/or arena. While there are future possibilities from sources such as Wintario, there are no current Federal or Provincial grant programs for new stadiums or new arenas as such. There is a Federal program, however, administered by the Department of Industry, Trade and Commerce, which will provide financial support for trade and convention centres and would, we understand, be applicable to a multi-purpose arena/trade centre facility. The Federal grant under this program would cover up to 25% of the total estimated capital cost (land and building) or the contribution of the



Provincial Government, whichever is less. Funding levels and existing commitments indicate that monies could be available for Hamilton about three years from now. There appears to be a reasonable possibility that matching Provincial funding could be obtained for such a facility; especially if community use is contemplated. There is also a possibility that additional Federal and Provincial funding might be available oriented more specifically to the arena and to a new stadium, particularly if a major national or international sporting event were to be held in Hamilton; but the probability of obtaining this is difficult to assess at this time. In addition some involvement of the private sector, either deriving from possibilities to offset some of the costs of servicing an NHL franchise against capital expenditures, or from other private sources, could make an important contribution to financial viability.

Based on the above it seems that senior government funding for at least half the capital cost of a new arena/trade centre is likely, and a similar level of assistance for a new or improved stadium may be forth-coming.

Interim Conclusions: Narrowing the Options

The evaluation of potential sites for a stadium showed that the existing Ivor Wynne Stadium and three other sites were the prime candidates from the viewpoint of site characteristics, site location, accessibility and costs.

Because of the substantial capital cost, it appears unlikely that a new stadium or new stadium/arena will be financially feasible



unless Federal and Provincial support can be obtained. Expansion/improvement of the Ivor Wynne Stadium for 30-65% of the cost of a new stadium would be more attractive financially, although not as attractive in terms of the final product. Achievement of a suitable 40,000+ seat stadium is apparently an economic necessity, in the context of rising costs, for maintaining a CFL team in Hamilton, and attracting other events such as Grey Cup games, major league soccer or the Pan-Am games. A conceptual design which would add 8,500 new seats to the Ivor Wynne Stadium in desirable sideline locations at a 1980 cost of about \$10 million was developed, with a cost of \$22 million if refurbishing is carried out at the same time. The comparable cost of a new stadium would be about \$32 million, and three suburban sites (two on the mountain, one in the east end) were identified as suitable for a new stadium.

Senior government funding for an arena appears possible if a multi-purpose arena/trade centre/convention centre is planned. Federal funding under the relevant program of the Department of Industry, Trade and Commerce requires that trade centre facilities be part of the complex. The importance of a direct physical link between such a new facility and the existing convention centre suggests strongly that a new trade centre/ arena should be located downtown, as close as possible to the existing convention centre. There are several downtown sites for such a facility which would be suitable from the accessibility, servicability and adjacent land use points of view. Further, economic spin-offs and tax revenues from such a facility would be greater if it were located downtown than if it were sited elsewhere in the region. The new arena/trade centre would



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complement the new convention centre, ensure greater use is made of hotel, restaurant and other support facilities, and contribute to retaining much of the multiplier effect within the metropolitan region.

There therefore appear to be grounds for concluding that a new trade centre/arena located in the downtown area adjacent to the existing convention centre would be feasible from the point of view of suitable sites, accessibility, servicability and demand/economic impact. Should Federal and Provincial funding be obtained for up to half of the capital/land costs of a new arena/trade centre, this would undoubtedly render it more financially feasible and minimize and possibly eliminate municipal tax increases, especially if support from the private sector materializes.

The study therefore concluded that interim findings of the stadium/arena feasibility study were favourable in terms of desirability, market demand, potential sites and financial considerations, and further study would be warranted under Phase 2. It was suggested and agreed that Phase 2 should focus on the following:

- 1. Conceptual design of an 8,500-seat expansion of the Ivor Wynne Stadium, capital cost estimates, and estimated financial/social/economic impacts of this program.
- 2. Conceptual design of a new 42,500 seat stadium and comparative analysis of three suburban sites for it, two on the mountain and one in the east end close to the Queen Elizabeth Way.
- 3. An assessment of the most suitable downtown site for an arena/ trade centre and a conceptual design and capital cost estimate for this facility; three downtown sites were proposed for this more detailed assessment.
- 4. More detailed assessment of probable demand for the facilities, proposed financial arrangements and impacts, suggested operations and management arrangements, and the estimated economic and other impacts of the facilities.



5. A second public survey, focussing on existing and potential future attendance/expenditures, by residents of the greater Hamilton area, at major sporting, recreational and trade show events in Hamilton and elsewhere.

It was agreed at that interim point in the study (July 31, 1980) that Phase 2 would be carried out on the above basis, with the final report to be submitted early in September.

Market Estimates

The Market Analysis work and conclusions developed from it in Phase I were significantly strengthened by the Survey of Comparables and the public survey carried out in August regarding existing and potential future attendance/expenditures related to major sporting, recreational and trade show events. The survey of comparables essentially confirmed the estimates made by promoters of events. The public survey indicates that the market estimates based on the survey of promoters/impressarios operating in Hamilton and on market demand at comparable facilities in other cities are, if anything, conservative. The public demand, as revealed by the survey, could be two or more times the number of seats/ events which would be available based on normal game schedules and other events proposed by the promoters. Since the market estimates based on promoters and on comparable facilities are in close agreement, we have used these as the basis for financial and economic impact analyses, recognizing that they are, if anything, conservative when viewed in the context of the public survey.

Site Comparisons

A total of twenty potential sites were initially identified and



evaluated and, from these, seven sites were subjected to more detailed assessment in Phase 2: three downtown sites for an arena/trade centre; an improved/expanded Ivor Wynne Stadium on its existing site; and three suburban locations for the stadium.

Of the stadium sites, it was concluded that the most suitable for a new stadium would be Site 2, located south of Limeridge Road and east of Upper Wentworth Street on Hamilton Mountain. Among its advantages are: partial ownership by the City with the balance held by the Ontario Land Corporation; conformity to Regional and City official plans; good accessibility via both road and transit, with the prospect of service by the Intermediate Capacity Transit System (ICTS) either directly or through shuttle buses; availability of substantial on-site parking and distributed parking at ICTS stations and at a new shopping centre to the north, across Limeridge Road and the planned Mountain Arterial; and proximity to residential areas whose populations could make use of the facility. Development of new neighbourhoods adjacent to the facility can be designed to ensure compatability between the residential and recreational uses.

Site 8, the existing Ivor Wynne Stadium location, also enjoys a number of advantages, including: costs relative to construction of a new facility; reasonable accessibility by automobile and transit, although it is not located within the ICTS corridor and suffers from local parking restraints; and situation within a residential area whose population could benefit from the facility and with a number of commercial facilities nearby. It was concluded that both Site 2 and Site 8 should be considered for the stadium, and the trade-offs of design, accessibility, local impacts and capital costs should be



presented herein as a basis for a decision for the community.

Of the arena/trade centre sites, it was concluded that the most suitable would be Site 6, located on the east side of Bay Street North between King Street West and Merrick Street. Its advantages include: complete ownership by the City; applicable zoning and official plan designations; closest proximity to and best relationship with the Convention Centre it is intended to complement; close relationships with the proposed office tower and hotel, which will serve as link between the Convention Centre and the arena/trade centre; and strong compatability with the adjacent areas, in terms of completing the Jackson Square development and providing an important landmark to persons approaching the downtown along York Boulevard.

It is therefore recommended that Site 6 be selected if a new arena/trade centre is to be constructed.

Design Concepts

As described earlier in Section 4 of this Summary Report, design concepts were developed for an expanded/refurbished Ivor Wynne Stadium on Site 8, a new stadium on Site 2, and a new arena/trade centre on Site 6. Both the expanded Ivor Wynne concept and the new stadium concept would provide some 42,500 seats with the majority located between the goal lines. A new stadium would provide a superior facility, in that the seats could be evenly balanced on both sides of the field, which is not the case for the expanded Ivor Wynne concept, thereby allowing better viewing. There are a number of other advantages to the new facility, stemming from the lack of site constraints and the fact that a new design concept can be developed, providing a partially sunken amplitheatre, more convenient access to the seats, a much larger amount of



parking, etc. A related advantage is that the preferable north-south field alignment can be achieved on the new site, while the Ivor Wynne concept must retain the existing east-west alignment.

It is concluded therefore that the new stadium on Site 2 would be superior to an expanded/refurbished Ivor Wynne Stadium on its existing site, but that either design concept would be acceptable in providing a major outdoor stadium facility for Hamilton. Such a facility would be suitable both for supporting a CFL team in Hamilton under the current and anticipated economic conditions and for other major sporting/recreational events such as Grey Cup games, major rock concerts, etc.

The design concept for the combined arena/trade centre provides for a direct, enclosed pedestrian linkage to the existing Convention Centre and compatible interfaces with existing Jackson Square development and the proposed office tower and hotel. The facility itself would contain 15,300 seats with excellent sight lines and suitable playing area for NHL games, basketball, and other major sporting/recreational and convention type events. Two concepts have been developed: one involving a truss roof and the other with a stainless steel, air-support roof. The proposed design includes retail shops, concessions and circulating areas exposed by the use of glass. This, plus the major entrances at the corner of York/Bay and the plaza level entrance will add vitality and activity to the adjacent streets, plaza and shopping promenade and strong visual impact for those approaching the area along York Boulevard.



Financial/Operations Analyses

Some forty-seven comparable facilities were investigated and, from this, a short-list of five stadiums and five arenas was subjected to more detailed study, including site examinations and interviews with owners/operators. From these investigations, important information on markets, financial arrangements and experience, and operating arrangements/ experience was obtained. It was found that no stadium or arena generated enough revenue to cover its carrying costs related to the full capital cost, thereby demonstrating the importance of financing from government or private sector sources. Public ownership and operation were the norm, with financing coming from a variety of public and private sources.

Because of realty and business taxes which would be faced by a private operator, and because such a facility cannot be profitable in the commercial sense, we conclude that public ownership and operation should apply for a new arena/trade centre and a new or improved stadium in Hamilton.

Detailed financial analyses were carried out, as described in Section 5 of this Summary Report and in Appendices 2C, 2I, and 2J. From this it is concluded that the most viable arena/trade centre alternative is a multi-purpose operation, allowing conversion for exhibition and trade use, physically connected to the Hamilton Convention Centre and operated jointly with the Convention Centre to achieve certain staffing and other economies. It is estimated that such a facility would generate an operating profit in the order of \$1.6 million per year, which could be used to offset capital debt charges.



An expanded Ivor Wynne Stadium would generate an estimated operating profit (exclusive of debt charges) of about \$144,000, which could be augmented by some \$105,000 in years when a Grey Cup game is hosted. A new stadium could produce an estimated net operating profit of some \$156,000; however, in combination with Ivor Wynne Stadium, there would be a net operating loss of some \$255,000, on the assumption that the Ivor Wynne Stadium would continue to experience operating expenses while losing the rental revenue from the Hamilton Tiger Cats.

Analysis was carried out of the likely impact of municipal funding on the average municipal tax-payer in the City of Hamilton. The results show that with 50% senior government funding, the combination of the arena/trade centre and a completely refurbished Ivor Wynne Stadium would cost the average tax-payer (with an assessment of \$5,000) about one dollar per month in increased municipal taxes. If senior government funding were available only for the arena/trade centre, and the less expensive stadium approach were taken (under which Ivor Wynne would be expanded but not refurbished, costing about \$10 million) the cost to the tax payer would be about the same: e.g. about one dollar per month. With 50% senior government funding, the cost of an arena/trade centre and the new stadium would be about \$1.75 per month to the average tax payer; if senior government funding were available only for the arena/trade centre, this would rise to almost \$3.00 per month.

The above estimates were based upon a 12% interest rate. Sensitivity analyses were carried out to show the impact of a higher or lower interest rate (10% or 14%), the impact of higher or lower



facility useage and revenue levels, and the impact of various levels of senior government funding (25%, 50%, 75%). The resulting ranges of impacts on local tax levels are presented in Section 5 of this Summary Report and in Appendix 2J. Impacts on non-residential tax-payers would be some 18% higher than those for residential tax-payers.

Economic and Other Impacts

Analyses were carried out to assess the economic impacts of a new stadium, an improved Ivor Wynne Stadium and a new arena/trade centre, in terms of permanent jobs created in Hamilton, construction jobs during the course of construction, new income generated each year on a permanent basis, income generated by construction expenditures during the course of construction, and increased business/realty taxes to the City of Hamilton. The findings of this analysis are summarized below:

- the new stadium would generate some 125 permanent jobs, 435 construction jobs during the 22 month construction period, \$3.0 million of new income per year on a permanent basis, \$67.1 million of income in Hamilton generated by construction expenditures during construction, and \$3,000 \$6,500 of additional business/realty taxes to the City;
- the improved Ivor Wynne Stadium would generate some 80 permanent jobs, 455 construction jobs (during 18 months), \$1.9 million of new income per year, \$45.5 million of income generated by construction expenditures, and \$1,700 \$3,700 more business/realty taxes to the City;
- the new arena/trade centre would generate some 615 permanent jobs, 650 construction jobs (28 months), \$25.2 new income per year, \$80.3 million income generated by construction expenditures, and \$40,200 \$87,100 more business/realty taxes to the City.

The larger economic benefits from the arena/trade centre reflect the



greater number and the variety of events which would be carried out in this facility and its central location which would contribute to the consumption of goods and services produced by local businesses.

In addition, as discussed in Section 6 of this report and Appendix 2J, other positive social impacts would result, including greater availability of facilities for amateur sport, the availability of major sporting/recreational/trade show events in Hamilton (rather than requiring travel to other centres by Hamilton residents), positive impacts on the adjacent land uses and urban land development which could be expected (particularly for the new arena/trade centre and the new stadium), and an enhanced sense of civic pride.

Conclusions and Recommendations

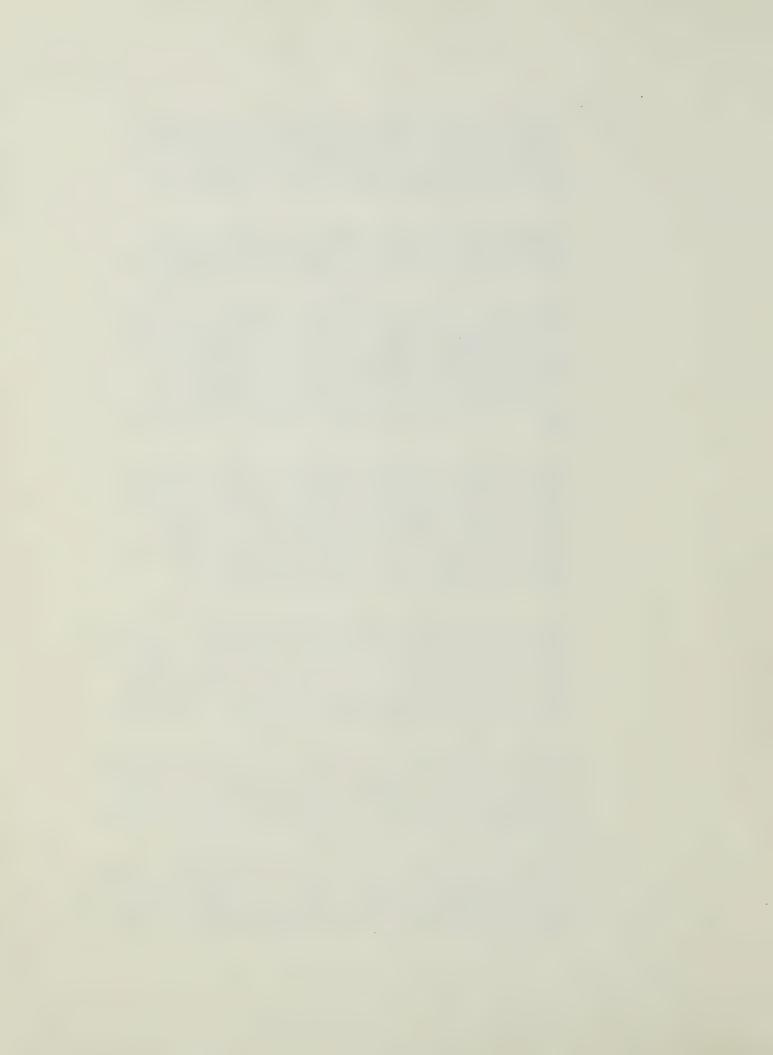
Based upon the study findings, we present the following conclusions and recommendations:

- . public opinion, market analysis, site comparisions, design concepts and financial/operations analyses support the desireability and feasibility of a new arena/trade centre and a new or improved stadium provided that suitable financing can be arranged.
- if funding can be arranged, a new stadium, located on the mountain at Site 2 (with an escalated cost of \$40.3 million) would be preferable in terms of the facilities and accessibility which could be provided, but an expanded/refurbished Ivor Wynne Stadium (at an escalated cost of \$12.3 to \$26.0 million) would also be suitable.
- such a new or improved stadium with at least 40,000 seats is essential to the continued economic viability of a CFL football team in Hamilton and to the obtaining of an NHL team without incurring a territorial payment to the Toronto Maple Leafs.
- At least 50% Federal/Provincial funding seems likely for a combined arena/trade centre facility which should be located



adjacent to Jackson Square and the existing Convention Centre; the facility would be operated jointly with the Convention Centre, would be extremely compatible with existing and proposed Jackson Square and adjacent developments, and would contribute substantial economic spinoffs in such a location.

- an NHL team for Hamilton is central to the financial feasibility of the arena/trade centre; the prospects of an arrangement under which private interests would purchase an existing NHL team appear to be reasonably good.
- location of a new arena/trade centre adjacent to Jackson Square and a new stadium south of Limeridge Road and east of Upper Wentworth Street, with service provided to each by the Intermediate Capacity Transit System now being planned/designed for Hamilton, would be particularly advantageous in terms of ease of access, flexibility for use of parking facilities distributed along the ICTS, and in providing additional ridership and revenue to the ICTS.
- construction of these two facilities would provide substantial economic benefits to the City of Hamilton, estimated at some 740 permanent jobs and increased income of some \$28.2 million per year. Additional City revenues from realty and business taxes can also be anticipated, in the range of \$43,200 to \$93,600 per year. During the 22-28 month construction period there would be some 1,085 construction jobs and \$147 million income in Hamilton generated by construction expenditure.
- social and recreational benefits would include the availability of major sporting/recreational/trade show events in Hamilton, conveniently available to residents; greater availability of stadium and arena/trade show facilities to support amateur sports and community activities; and the civic pride and spin-off developments which could be expected in conjunction with such major new facilities.
 - should the City of Hamilton decide to proceed with the stadium and the arena/trade centre, negotiations should be pressed as soon as possible regarding senior government funding and the obtaining of an NHL team franchise for Hamilton; depending on the timing and nature of results, more detailed planning and design work can be commenced for the facilities.
- an early decision will be required regarding whether to construct a new stadium on the Mountain or an expanded/refurbished Ivor Wynne Stadium; this will depend on the extent to which senior government funding can be obtained, as well as on consideration of the trade-offs between the superior facilities/



accessibility available with the new facility versus the cost advantages of expanding Ivor Wynne. However in such an evaluation it will be necessary to determine the extent to which current and future impacts of stadium operations can be integrated.

if these negotions are successful within a reasonable time schedule, it should be possible to call for tenders for a new arena/trade centre and a new stadium by July 1983. Subsequently, construction of the new arena/trade centre could be accomplished in approximately 22 months and construction of the new stadium would require approximately 28 months. If it were decided to expand the Ivor Wynne Stadium, it should be possible to call tenders by January 1982 and the expansion/refurbishing would require approximately 18 months subsequently. The escalated costs presented in this report are based on such a schedule; further delays could be expected to add approximately 10% per year to these costs as a result of anticipated continuing inflation.

The intent of this report has been to provide a comprehensive and objective assessment of the desireability, feasibility, and nature/location of potential new/improved arena/stadium facilities including the necessary financial/operational information, as a basis for an informed decision by City Council regarding this important question. We trust that this report will serve these purposes.

